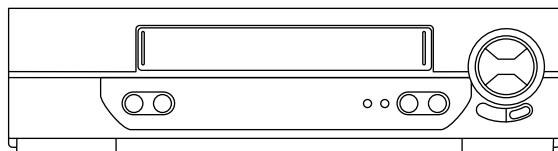


SHARP SERVICE MANUAL

SY8B1VC-H992U

VHS VIDEO CASSETTE RECORDER

VC-H992U MODELS VC-H992U(A)

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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VC-H992U/H992U(A)...Models for U.S.A.

SHARP CORPORATION

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The contents are subject to change without notice.

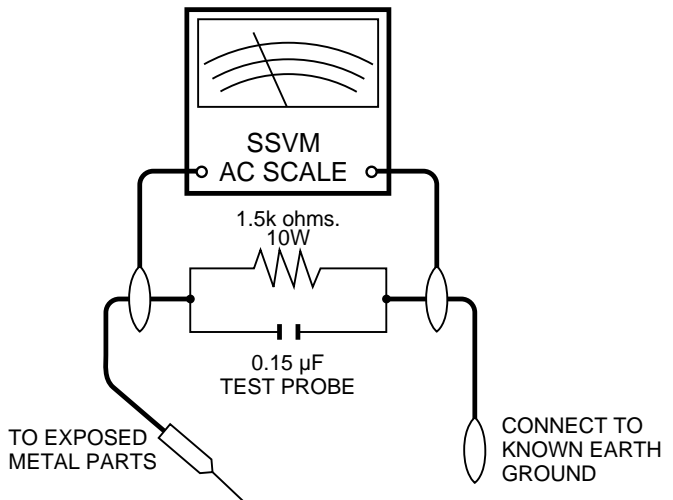
IMPORTANT SERVICE NOTES

BEFORE RETURNING THE VIDEO CASSETTE RECORDER

Before returning the video cassette recorder to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the video cassette recorder.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for current in the following manner.
 - Plug the AC line cord directly into a 120 volt AC outlet (Do not use an isolation transformer for this test).
 - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit.
 - Use an SSVM or VOM with 1000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor (See Diagram).
 - Move the resistor connection to earth exposed metal part having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts,

etc.) and measure the AC voltage drop across the resistor. Reverse the AC plug on the set and repeat AC voltage measurements for each exposed part. Any reading of 0.45V rms (this corresponds to 0.3mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the video cassette recorder to the owner.



WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

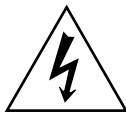


CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

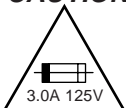


This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.



This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

CAUTION:



This symbol mark means fast operating fuse. For continued protection against risk of fire, replace only with same type fuse F901 (3.0A, 125V).

PRECAUTIONS IN PART REPLACEMENT

When servicing the unit with power on, be careful to the section marked white all over.

This is the primary power circuit which is live.

When checking the soldering side in the tape travel mode, make sure first that the tape has been loaded and then turn over the PWB with due care to the primary power circuit.

Make readjustment, if needed after replacement of part, with the mechanism and its PWB in position in the main frame.

(1) Start and end sensors: Q701 and Q702

Insert the sensor's projection deep into the upper hole of the holder. Referring to the PWB, fix the sensors tight enough.

(2) Photocoupler: IC901

Refer to the symbol on the PWB and the anode marking of the part.

(3) Cam switches A and B: D708 and D709.

Adjust the notch of the part to the white marker of the symbol on the PWB. Do not allow any looseness.

(4) Take-up and supply sensors: D707 and D706.

Be careful not to confuse the setting direction of the parts in reference to the symbols on the PWB. Do not allow any looseness.

1. GENERAL INFORMATION

1-1 FEATURES

Common Features

- EZ Set Up (automatically channel and clock set up)
- 3-Language OSD
- 181-ch Cable Ready With Frequency Synthesizer Tuner
- 1-Year, 8 Program or Daily, Weekly Programmable Timer
- Simple Recording Timer
- Universal Remote Control
- S Picture
- Daylight Saving Time
- Blue Screen & On Screen Set-up Programming Function
- Automatic Tracking System
- CM Skip Search
- Instant Replay
- Automatic Playback Function
- Tamper Proof Function
- 8 Hours of Recording/Playback (T-160)
- 12-Hours AM/PM Indication Display Clock
- 19 μ m System (EP Mode)
- Full Loading System
- Auto Clock Setting
- High speed FF/REW (*400)
- S-VHS Quasi Playback

1-2 SPECIFICATIONS

1) Recording system

Format: VHS NTSC Standard
Luminance signal: FM recording
Chroma signal: Low frequency converted direct recording
Color system: NTSC
Number of video head: 4
Tape speed: (SP) 33.35 mm/sec
(LP) 16.67 mm/sec
(EP) 11.12 mm/sec

2) Video signal

Input level: 0.5 ~ 2.0 Vp-p, 75 ohm unbalanced
Output level: 1.0 Vp-p, 75 ohm unbalanced
Horizontal resolution: 220 lines (SP mode)
Signal to noise ratio: 45dB (SP mode)

3) Audio signal

Input level: – 8 dBs (309mVrms, 47k ohm)
Output level: – 8 dBs (309mVrms, 1k ohm)
Frequency response: 80Hz ~ 10kHz (SP mode linear), 20Hz ~ 20kHz (Hi-Fi mode)
Signal to noise ratio: 43dB (SP mode linear)
Hi-Fi dynamic range: 90dB
Wow and flutter: 0.005% max. (Hi-Fi mode) with T-120 tape

4) Receiving channel

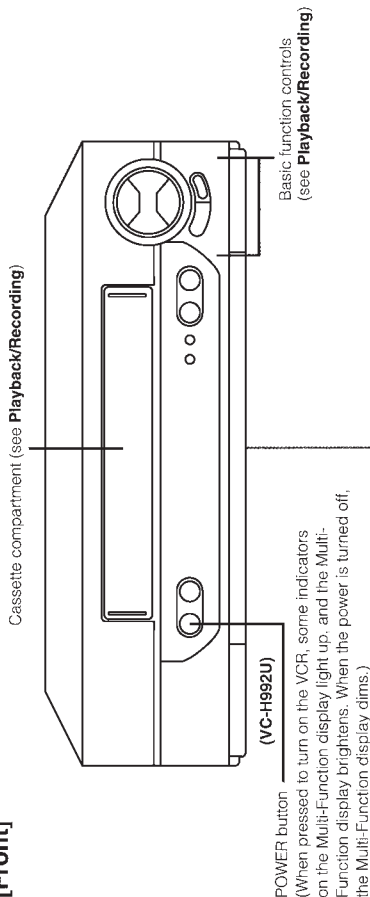
VHF: Channels 2 ~ 13
UHF: Channels 14 ~ 69
CATV: Channels A-8, A-5 ~ W + 84
Antenna Input Impedance: 75 ohm

5) Misc.

Fast forward /Rewind time: Approximate 54 second with T-120 cassette
Power source: 120 V AC, 60 Hz
Power consumption: 20 W
Allowable ambient temperature: with T-120 tape 5°C to 40°C (41°F to 104°F)
Operating humidity: below 80% RH
Dimensions: 360 (W), 92 (H), 253 (D) mm(14-3/16, 3-5/8, 9-31/32 inch)
Weight: 2.8 kg (6.17 lbs)
Accessories included: 75 ohm coaxial cable, Operation manual, Registration card
Infrared remote control, Dry Battery (2 pcs.)
Note: Specifications may be changed for improvement without notice.

Major Components of Your VCR

[Front]



Multi-Function Display (explained throughout the operation instructions)

When the power is on, each time **DISPLAY** is pressed, the Multi-Function display changes as follows:

① Channel setting → ② Tape counter → ③ Clock



Display	Symbol	Function Status	Display	Symbol	Function Status
STOP	—	Stop	FF	—	Fast forward
PLAY	▶	Play	REW	—	Rewind
PAUSE	⏸	Video Search, Slow, Still, Frame Advance	PAUSE	REC	Rec Pause
REC	REC	Record	—	⏻	Cassette-in
—	⏻	Tamper Proof Active	—	VCR	Unit in VCR mode

NOTE

- The display will return to the original mode (counter or clock display) 3 seconds after the VCR enters the operation mode.

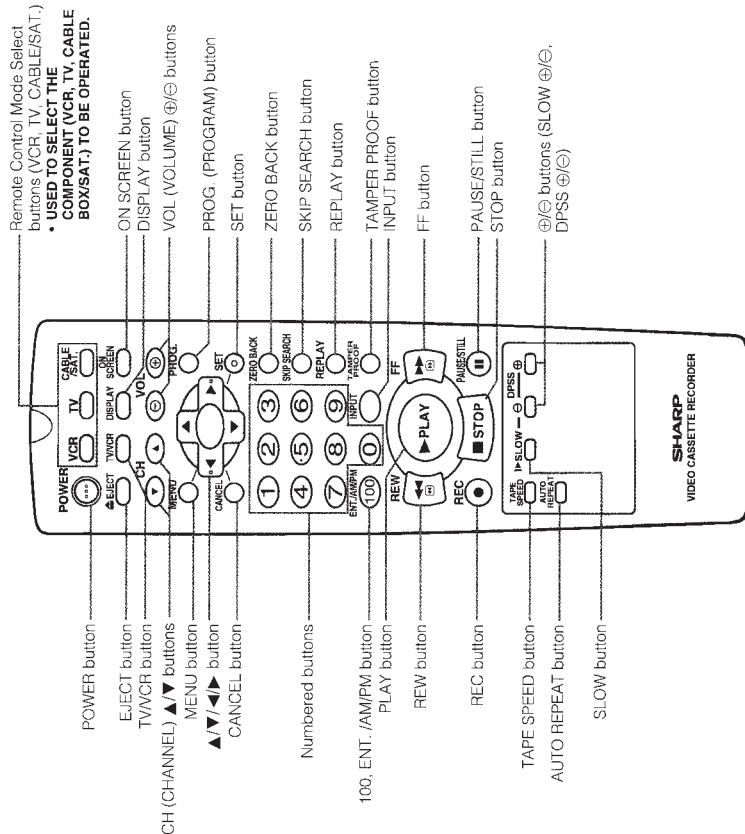
[Rear]

Connection terminals (see **Connecting the VCR and Cable TV Connections**)

Connection terminals (see **Tape Dubbing**)



Remote Control



Inserting the Batteries

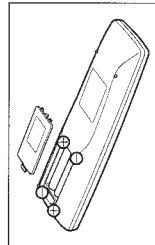
Make sure that the batteries have been properly installed first. Fit two batteries type "AA". If the remote control stops working, fit new batteries.

Ensure the batteries are fitted correctly, matching the polarities (⊕/⊖) indicated in the remote control.

NOTE

- After changing the batteries in the remote control, the code settings for the TV, cable box and Digital Satellite Receiver must be re-entered.

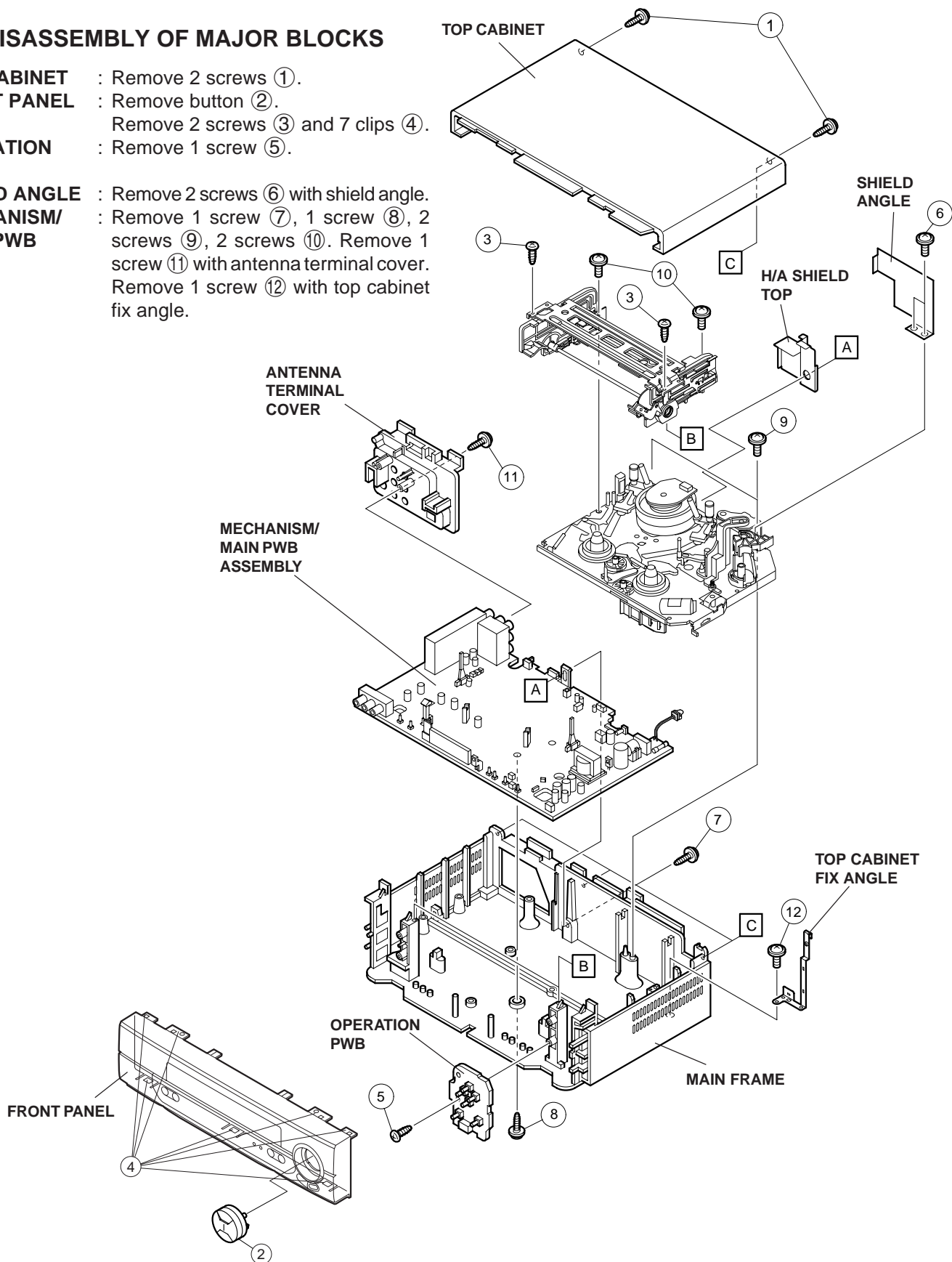
- Do not subject the remote control to shock, water or excessive humidity.
- The remote control may not function if the VCR sensor is in direct sunlight or any other strong light.
- Incorrect use of batteries may cause them to leak or burst. Read the battery warnings and use the batteries properly.
- Do not mix old and new batteries, or mix brands in use.
- Remove the batteries if the remote control will not be operated for an extended period of time.
- If the remote control does not function properly when new batteries are installed, remove the batteries and keep pressing any button for 10 seconds before re-installing them.



2. DISASSEMBLY AND REASSEMBLY

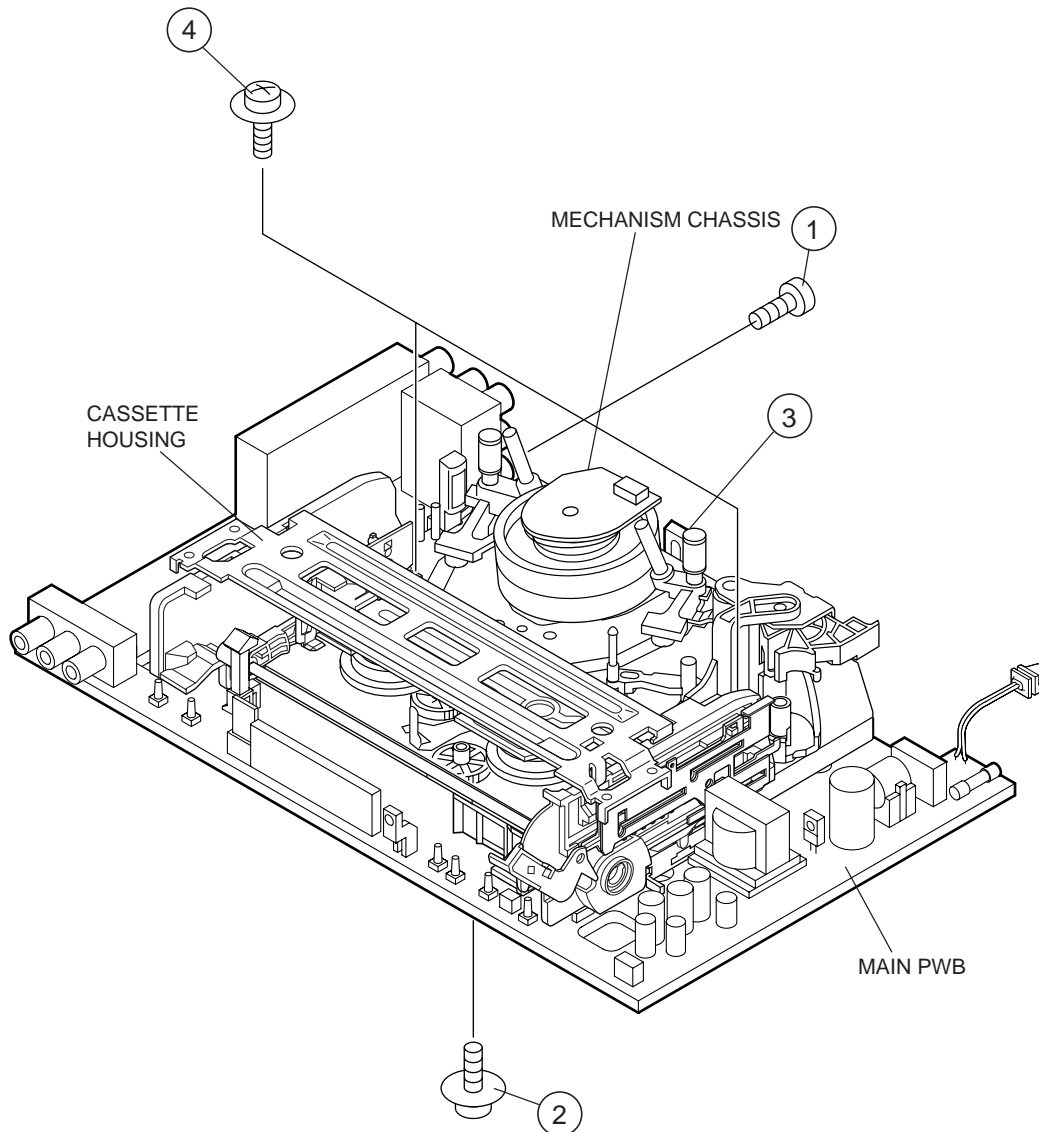
2-1 DISASSEMBLY OF MAJOR BLOCKS

- TOP CABINET** : Remove 2 screws ①.
- FRONT PANEL** : Remove button ②.
Remove 2 screws ③ and 7 clips ④.
- OPERATION PWB** : Remove 1 screw ⑤.
- SHIELD ANGLE MECHANISM/MAIN PWB** : Remove 2 screws ⑥ with shield angle.
Remove 1 screw ⑦, 1 screw ⑧, 2 screws ⑨, 2 screws ⑩. Remove 1 screw ⑪ with antenna terminal cover.
Remove 1 screw ⑫ with top cabinet fix angle.



2-2 DISASSEMBLING THE MECHANISM/MAIN PWB ASSEMBLY

1. When removing the mechanism from the main PWB, remove the antenna cover 1 screw ①, and remove the antenna cover.
Remove the PWB bottom plate 1 screw ②.
Remove the FFC cable (AA, AD, AH) ③ which connecting the PWB and the mechanism.
Take out vertically the mechanism so that it does not damage the adjacent parts.
2. Removing the mechanism and cassette housing.
Remove 2 screws ④ fixing the cassette housing to the mechanism, and remove the cassette housing.



2-3 CARES WHEN REASSEMBLING

INSTALLING THE CASSETTE HOUSING

When the cassette housing is installed on the mechanism, the initial setting is essential condition.

There are two initial setting methods, namely electrical and mechanical.

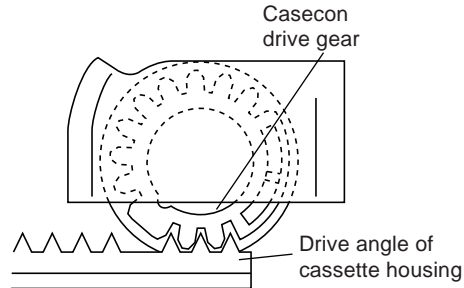
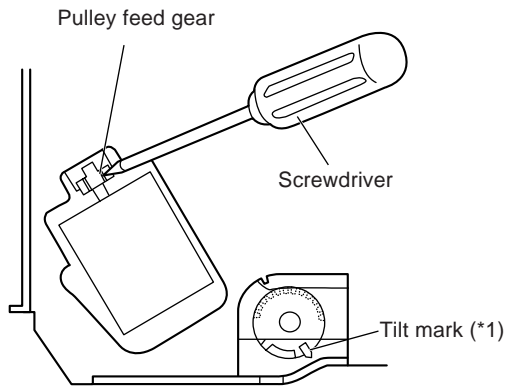
1. Electrical initial setting

So as to perform initial setting of mechanism execute the Step 1 of Installation of cassette housing. After ascertaining the return to the initial setting position (*1) install the

cassette housing. (Conditions: When mechanism and PWB have been installed)

2. Mechanical initial setting

Feed the pulley feed gear of loading motor with screw driver. After ascertaining the return to the initial set position (*1) install the cassette housing in the specified position. (This method is applied only for the mechanism.)

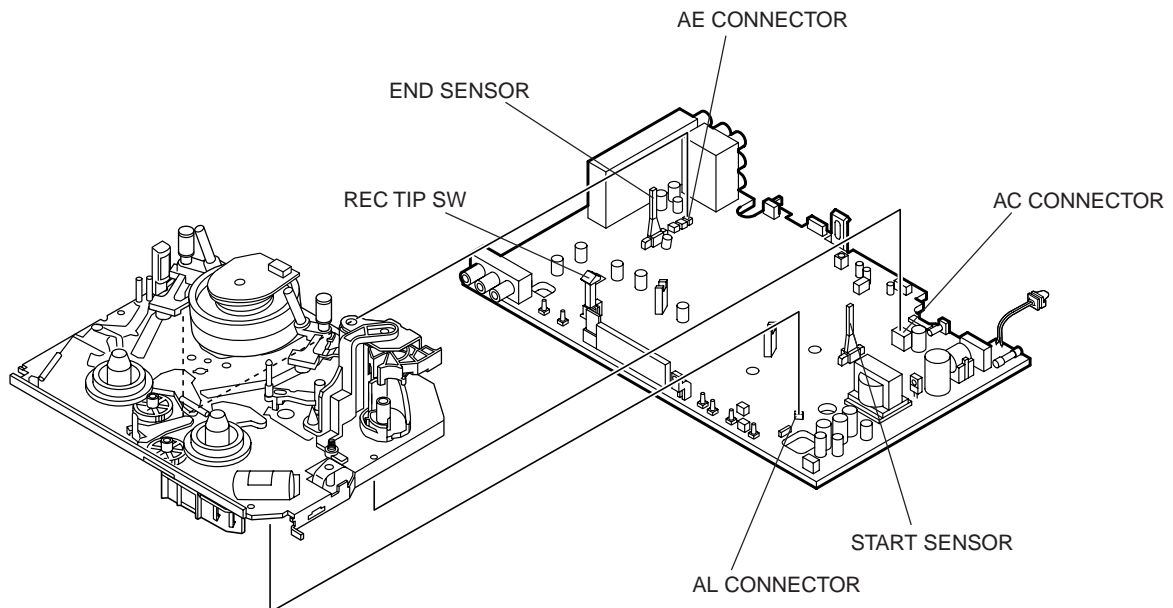


INSTALLING THE MECHANISM ON PWB

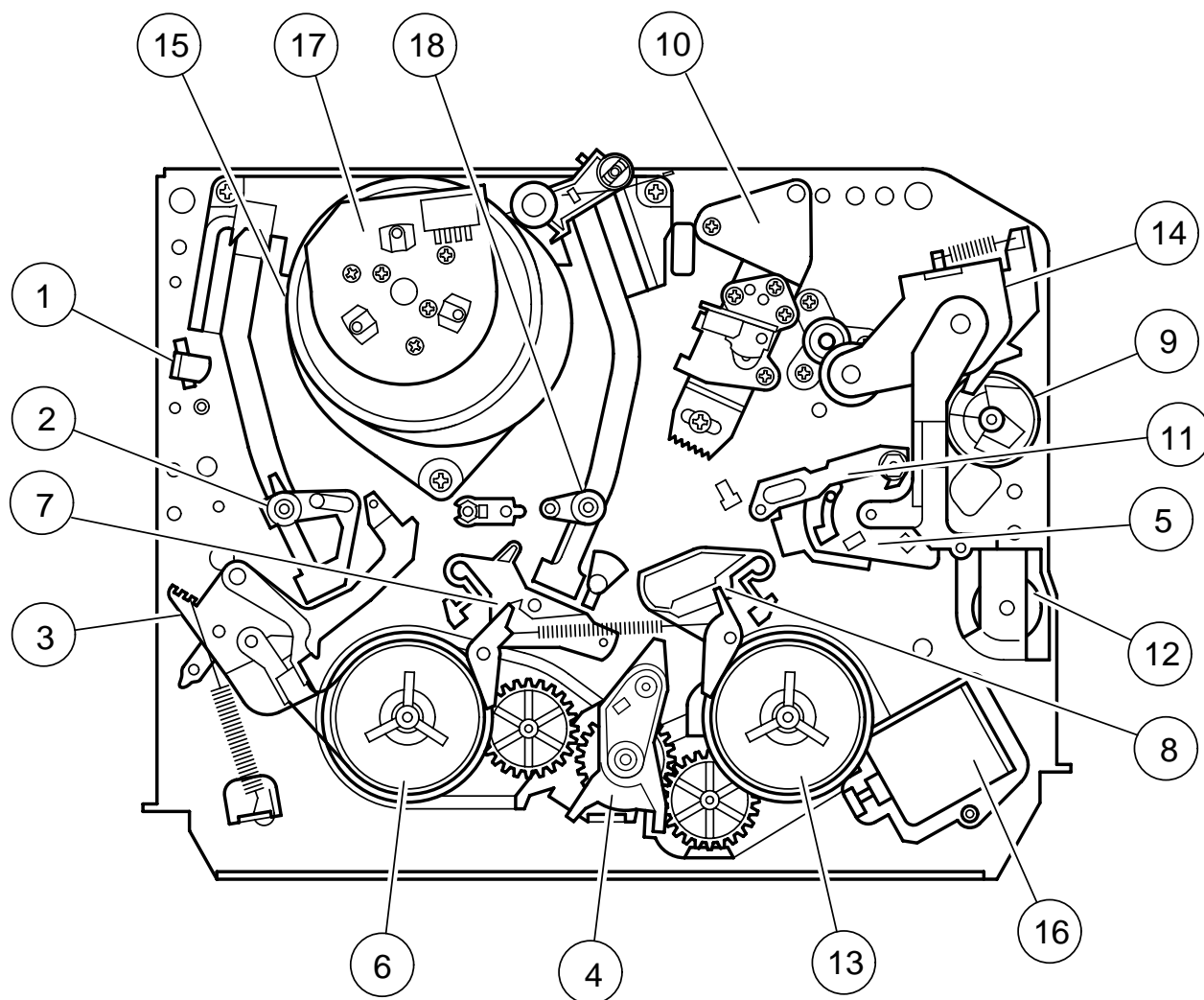
Lower vertically the mechanism, paying attention to the mechanism edge, and install the mechanism with due care so that the parts are not damaged. So as to fix the mechanism to the main PWB install two housings. (Fit the antenna cover to one of them. For other, fix the vicinity of loading motor and solder joint side of main PWB.) Connect again the FFC cable (AA-MH, AD-ME, AH-MH) between the mechanism and the main PWB.

PARTS WHICH NEED PARTICULAR CARE

When installing the mechanism chassis on the PWB unit, take care so as to prevent deformation due to contact of mechanism chassis with REC TIP SW.

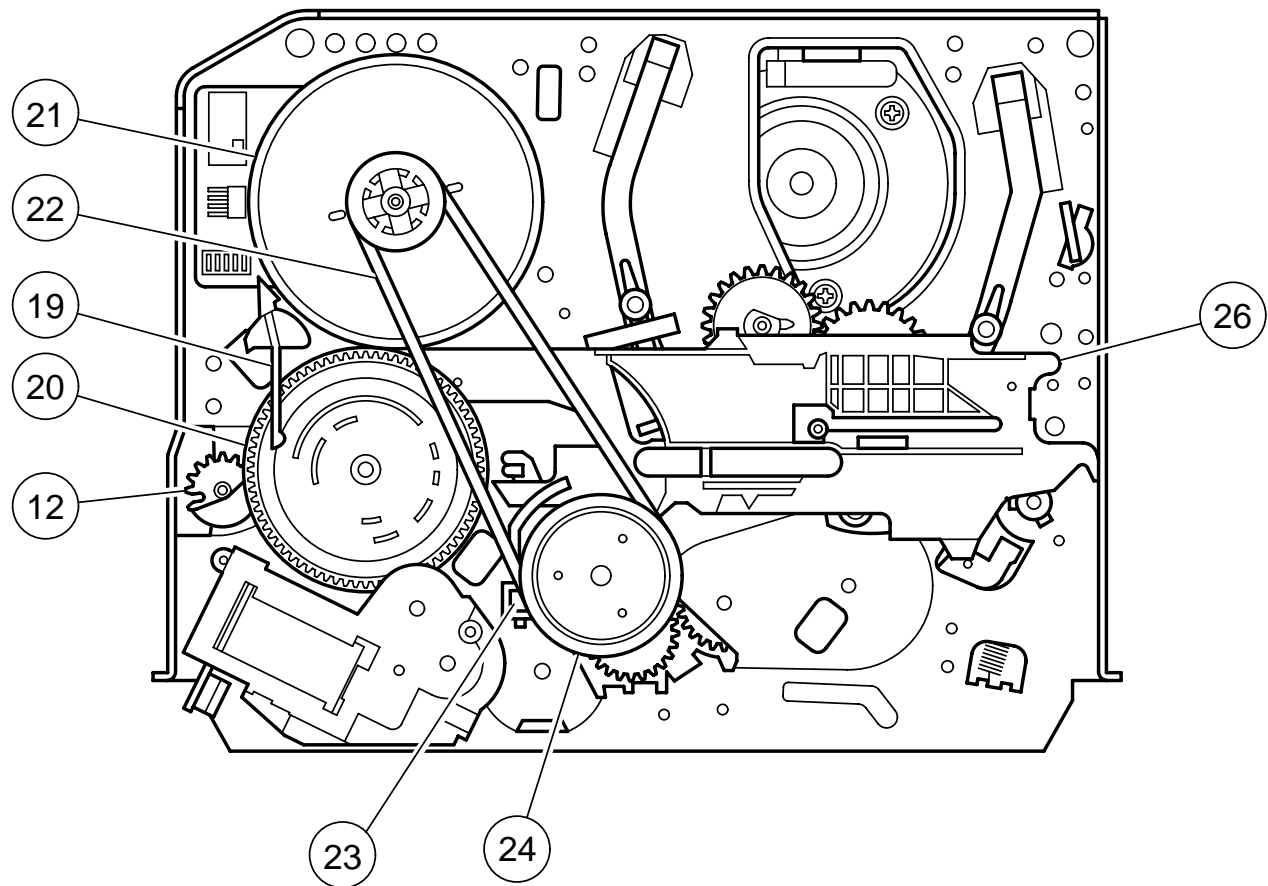


3. FUNCTION OF MAJOR MECHANICAL PARTS (TOP VIEW)



No.	Function	No.	Function
1	Full erase head	8	Tu main brake
2	Sup pole base ass'y	9	Pinch drive cam
3	Tension arm	10	A/C head ass'y
4	Idler ass'y	11	Reverse guide
5	Pinch drive lever ass'y	12	Casecon drive gear
6	Supply reel disk	13	Take-up reel disk
7	Sup main brake	14	Pinch roller lever ass'y

FUNCTION OF MAJOR MECHANICAL PARTS (BOTTOM VIEW)









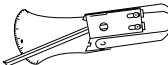

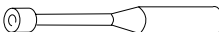

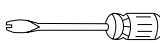


No.	Function	No.	Function
15	Drum ass'y	22	Reel belt
16	Loading motor	23	Clutch lever
17	Drum drive motor	24	Limiter pulley ass'y
18	Tu pole base ass'y	26	Shifter
19	Slow brake		
20	Master cam		
21	Capstan D.D. motor		

4. ADJUSTMENT, REPLACEMENT AND ASSEMBLY OF MECHANICAL UNITS

The explanation given below relates to the on-site general service (field service) but it does not relate to the adjustment and replacement which need high-grade equipment, jigs and skill. For example, the drum assembling, replacement and adjustment service must be performed by the person who have finished the technical courses.

4-1 MECHANISM CONFIRMATION ADJUSTMENT JIG

So as to perform completely the mechanism adjustment prepare the following special jigs. So as to maintain the initial performance of the machine the maintenance and check are necessary. Utmost care must be taken so that the tape is not damaged. If adjustment needs any jig, be sure to use the required jig.

No.	Jig Item	Part No.	Code	Configuration	Remarks			
1.	Torque Cassette Meter	JiGVHT-063	CZ		This cassette torque meter is used for checking and adjusting the torque of take-up for measuring tape back tension.			
2.	Torque Gauge	JiGTG0090	CM		These Jigs are used for checking and adjusting the torque of take-up and supply reel disks.			
		JiGTG1200	CN					
3.	Torque Gauge Head	JiGTH0006	AW					
4.	Torque Driver	JiGTD1200	CB		When fixing any part to the threaded hole using resin with screw, use the jig. (Specified torque 5 kg)			
5.	Master Plane Jig and Reel Disk Height Adjusting Jig	JiGRH0002	BR		These Jigs are used for checking and adjusting the reel disk height.			
		JiGMP0001	BY					
6.	Tension Gauge	JiGSG2000	BS		There are two gauges used for the tension measurements, 300 g and 2.0kg.			
		JiGSG0300	BF					
7.	Pinch pressing force measuring jig	JiGADP003	BK		This Jig is used with the tension gauge. Rotary transformer clearance adjusting jig.			
8.	Reverse guide height adjusting box driver	JiGDRIVER11055	AR		This Jig is used for height adjustment of the reverse guide (for reverse guide height adjustment).			
9.	Alignment Tape				These tapes are especially used for electrical fine adjustment.			
		VROATSV	CD		Video	Audio	HiFi Audio	Track
				525 Monoscope	7k	—	58μm	
				NTSC Color Bar	1k	—	58μm	
VROEFZCS OR VROEFZHS	BG		Black Level (only SYNC) signal	1k	—	19μm		
BH		2.3k						
10.	Guide roller height adjustment drive	JiGDRIVERH-4	AP		This screwdriver is used for adjusting the guide roller height.			
11.	X value adjustment gear type screw driver	JiGDRIVER-6	BM		For X value adjustment			
12.	Reverse Guide Height Adjusting Jig	JiGRVGH-F18	BU		This Jig is used for height adjustment of the reverse guide.			

MAINTENANCE CHECK ITEMS AND EXECUTION TIME

Perform the maintenance with the regular intervals as follows so as to maintain the quality of machine.

Maintained Parts	500 hrs.	1000 hrs.	1500 hrs.	2000 hrs.	Possible symptom encountered	Remarks
Guide roller ass'y	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lateral noises Head occasionally blocked	Abnormal rotation or significant vibration requires replacement.
Sup guide shaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Clean tape contact part with the specified cleaning liquid.
Reverse guide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Slant pole or pole base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Full erase head	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	Colour and beating	Clean tape contact area with the specified cleaning liquid.
A/C head	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	Small sound or sound distortion	
Upper and lower drum ass'y	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Poor S/N ratio, no colour Poor flatness of the envelope with alignment tape	
Capstan D.D. motor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No tape running, uneven colour	
Pinch roller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No tape running, tape slack	Clean rubber and rubber contact area with the specified cleaning liquid.
Reel belt		<input type="checkbox"/>		<input type="radio"/>	No tape running, tape slack, no fast forward/re- wind motion	
Tension band ass'y				<input type="radio"/>	Screen swaying	
Loading motor				<input type="radio"/>	Cassette not loaded or unloaded	
Idler ass'y				<input type="radio"/>	No tape running, tape slack	
Limiter pulley		<input type="checkbox"/> △		<input type="checkbox"/> ○		
Supply/take-up main brake levers				<input type="radio"/>	Tape slack	
AHC(Automatic head cleaner)		<input type="radio"/>		<input type="radio"/>		Replace the roller of the cleaner when it wears down. Just change the AHC roller assembly for new one.

NOTE: ○ : Part replacement. □ : Cleaning △ : Apply grease
<Specified> Cleaning liquid Industrial ethyl alcohol

* This mechanism does not need electric adjustment with variable resistor. Check parts. If any deviation is found, clean or replace parts.

REMOVING AND INSTALLING THE CASSETTE HOUSING

• Removal

1. In the cassette removing mode, remove the cassette.
2. Unplug the power cord.
3. Remove in the following numerical order.
 - a) Remove two screws ①.
 - b) Slide and pull up the cassette housing control.

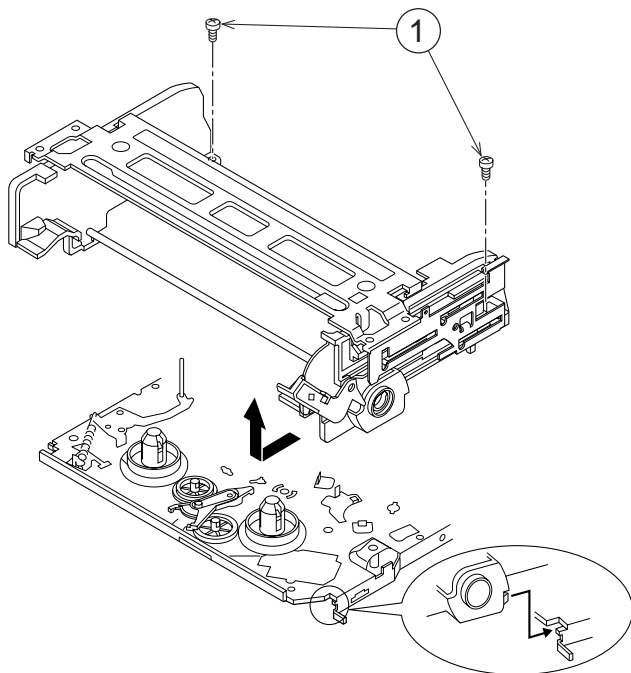


Figure 4-1.

• Reassembly

1. Before installing the cassette housing control, short-circuit TP801 provided at the center (when facing to the main PWB), press the eject button. The casecon drive gear turns and stops when the positioning mark appears. Engage two teeth of casecon drive gear with the three teeth of casecon drive angle gear, and set on the mechanism chassis as shown below.

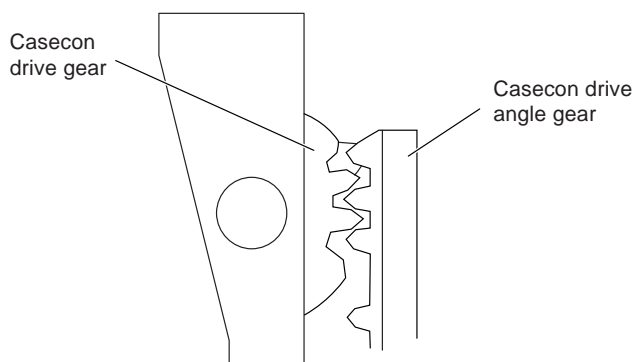


Figure 4-2.

2. Install in the reverse order of removal.

Notes:

1. When fitting the S/E sensor holder to the cassette controller frame L/R, take care.
2. Misengagement of teeth of casecon drive gear and drive angle gear causes malfunction. (The cassette cannot be set, load and ejection are repeated).
3. In the case when you use the magnet screw driver, never approach the magnet driver to the A/C head, FE head, and drum.
4. When installing or removing, take care so that the cassette housing control and tool do not contact the guide pin or drum.
5. After installing the cassette housing control once perform cassette loading operation.

TO RUN A TAPE WITHOUT THE CASSETTE HOUSING CONTROL ASSEMBLY

1. Remove the full-surface panel.
2. Short-circuit TP801.
3. Plug in the power cord.
4. Turn off the power switch.
(The pole bases move into U.L. position.)
5. Open the lid of a cassette tape by hand.
6. Hold the lid with two pieces of vinyl tape.
7. Set the cassette tape in the mechanism chassis.
8. Stabilize the cassette tape with a weight (500g) to prevent floating.
9. Turn on the power switch.
10. Perform running test.

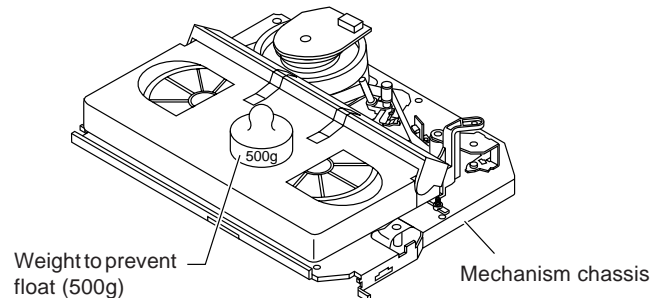


Figure 4-3.

Note:

The weight should not be more than 500g.

To take out the cassette tape.

1. Turn off the power switch.
2. Take out the cassette tape.

REEL DISK REPLACEMENT AND HEIGHT CHECK

• Removal

1. Remove the cassette housing control assembly.
2. Pull the tension band out of the tension arm ass'y.
3. Remove the Sup/Tu main brake ass'y.
4. Open the hook at the top of the reel disk, and remove the reel disk.

Note:

Take care so that the tension band ass'y and main brake ass'y (especially soft brake) are not deformed.

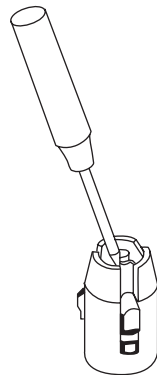
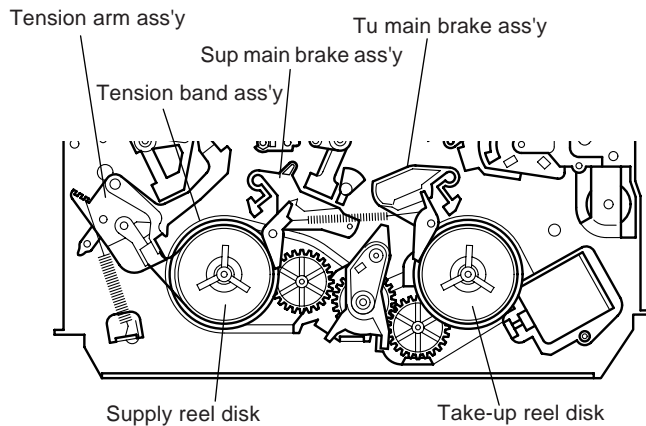


Figure 4-4.

Note:

When the tension band ass'y is pressed in the direction of the arrow for removal, the catch is hard to be deformed.

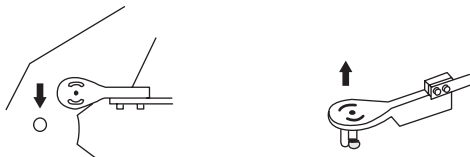


Figure 4-5.

• Reassembly (Supply reel disk)

1. Clean the reel disk shaft and apply grease (SC-141) to it.
2. Match the phases of reel disk and reel relay gear, and set the new reel disk.
3. After checking the reel disk height, wind the tension band ass'y around the reel disk, and insert into the hole of tension arm ass'y.

4. Assemble the Sup main brake ass'y.

Notes:

1. When installing the reel disk, take due care so that the tension band ass'y is not deformed and grease does not adhere.
2. Do not damage the Sup main brake ass'y. Be careful so that grease does not adhere to the brake surface.

• Reassembly (Take-up reel disk)

1. Clean the reel disk shaft and apply grease (SC-141) to it.
2. Align the phase of the reel disk to that of the reel relay gear and to install a new take-up reel disk onto the shaft.
3. Check the reel disk height and reassemble the take-up main brake ass'y.

Note:

1. Take care so that the Tu main brake ass'y is not damaged. Take care so that grease does not adhere the brake surface.
2. After reassembly, check the video search rewind back tension (see page 17), and check the brake torque (see page 19).

• Height checking and adjustment

Note:

1. Set the master plane with due care so that it does not contact the drum.
2. When putting the master plane, shift the reverse guide a little in the loading direction. Care must be taken since excessive shift results in damage.

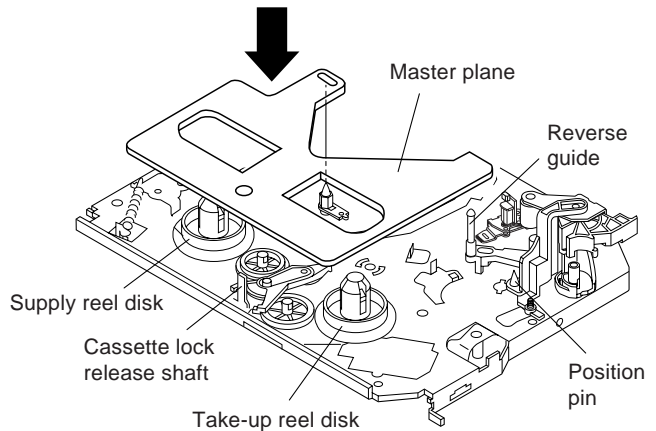


Figure 4-6.

Note:

- Check that the reel disk is lower than part A but higher than part B. If the height is not correct, readjust the reel disk height by changing the poly-slider washer under the reel disk.

Note:

Whenever replacing the reel disk, perform the height checking and adjustment.

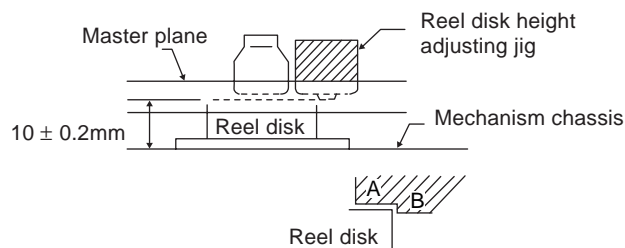


Figure 4-7.

CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN FAST FORWARD MODE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- **Setting**
 1. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.
 2. Press the FF button.
 3. To calculate the remaining capacity of the play back mode, slowly rotate the supply reel disk, and then shift it into the forward mode.
- **Checking**
 1. Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CW direction.
 2. Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

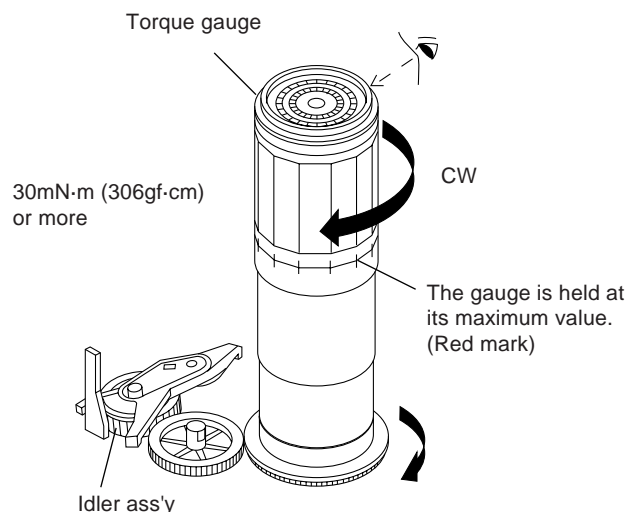


Figure 4-8.

- **Adjustment**
 1. If the FF winding-up torque is less than the specified value, clean the capstan D.D. motor pulley, drive belt, and limiter pulley with cleaning liquid, and check again.
 2. If the torque is less than the set value, replace the reel belt.

Notes:

1. Hold the torque gauge by hand so that it is not moved.
2. Do not keep the reel disk in lock state. Do not allow long-time measurement.

CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN REWIND MODE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- **Setting**
 1. Set a torque gauge to zero on the scale. Place it on the supply reel disk.
 2. Press the rewind button.
 3. To calculate the remaining capacity, slowly rotate the take-up reel disk, and then shift it into the rewind mode.
- **Checking**
 1. Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CCW direction.
 2. Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

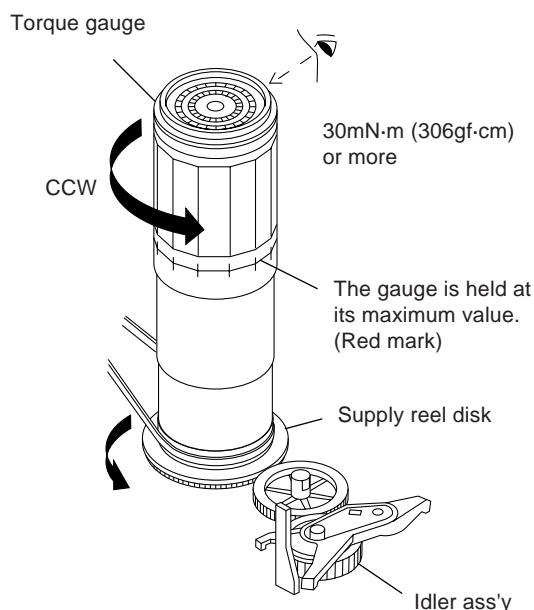


Figure 4-9.

- **Adjustment**
 1. If the rewind winding-up torque is less than the specified value, clean the capstan D.D. motor pulley, drive belt, and limiter pulley with cleaning liquid, rewind again, and check the winding-up torque.
 2. If the winding-up torque is still out of range, replace the drive belt.

Notes:

1. Hold the torque gauge by hand so that it is not moved.
2. Do not keep the reel disk in lock state. Do not allow long-time measurement.

CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN RECORD/PLAYBACK MODE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- Turn off the power switch.
- Open the cassette torque meter lid, and fix it with tape.
- Load the cassette torque meter into the unit.
- Put the weight (500g) on the cassette torque meter.
- Turn on the power switch.
- Press the picture record button, and set EP picture record mode (x3).

Set value $EP6.9 \pm 2.5\text{mN}\cdot\text{m}$ ($70 \pm 25\text{gf}\cdot\text{cm}$)

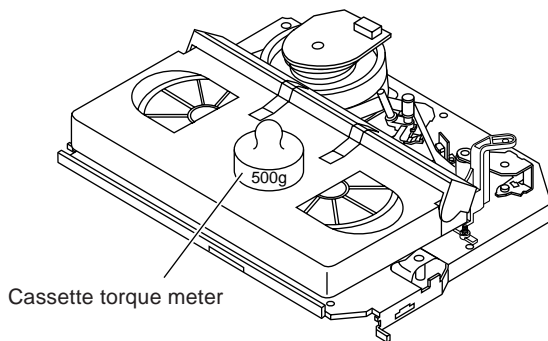


Figure 4-10.

- **Checking**

1. Make sure that value is within the setting $6.9 \pm 2.5\text{mN}\cdot\text{m}$ ($70 \pm 25\text{gf}\cdot\text{cm}$).
2. The winding-up torque fluctuates due to variation of rotation torque of limiter pulley ass'y. Read the center value of fluctuation as setting.
3. Set the EP record mode (x3) and make sure that the winding-up torque is within setting.

- **Adjustment**

If the playback winding-up torque is not within the setting, replace the limiter pulley assembly.

Note:

When the torque cassette is set, put a weight (500g) to prevent rise.

When the cassette torque meter is taken out.
Turn off the power switch.

CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN VIDEO SEARCH REWIND MODE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

- **Setting**

Press the playback button and rewind button to set the video search rewinding mode.

- **Checking**

Place the torque gauge on the supply reel disk, and turn it counterclockwise very slowly (one rotation every 1 to 2 seconds) and check that the torque is within the set value $14.0 \pm 3.9\text{mN}\cdot\text{m}$. ($144 \pm 40\text{gf}\cdot\text{cm}$)

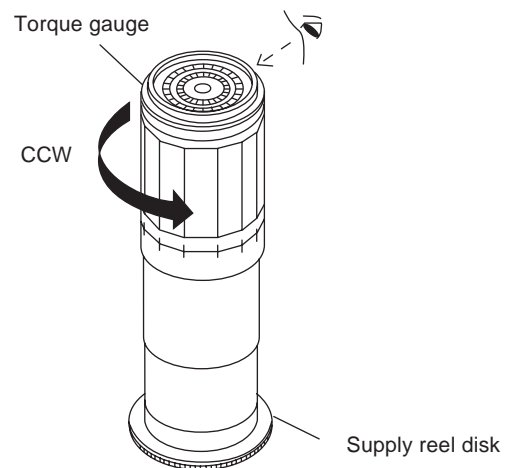


Figure 4-11.

Note:

Surely put the torque gauge on the reel disk to measure. If the torque gauge is raised, accurate measurement is impossible.

- **Adjustment**

If the rewinding playback winding-up torque is not within the setting, replace the limiter pulley assembly.

Note:

The winding-up torque fluctuates due to variation of rotation torque of supply reel disk. Read the center value of fluctuation as setting.

CHECKING THE VIDEO SEARCH REWIND BACK TENSION

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- **Checking**
 1. After pressing the play button, press the rewind button, and set the video search rewind mode.
 2. Place the torque gauge on the take-up reel disk, and turn it counterclockwise very slowly (one rotation every 2 to 3 seconds) and check that the torque is within the set value $3.4 \pm 1.5 \text{ mN} \cdot \text{m}$ ($35 \pm 15 \text{ gf} \cdot \text{cm}$).

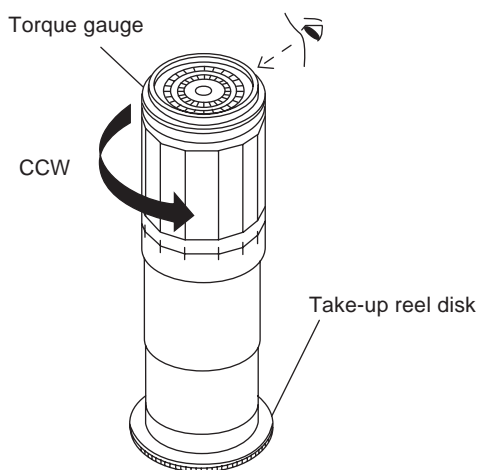


Figure 4-12.

Notes:

Set the torque gauge securely on the take-up reel disk. If it is not secure, the measurement will be incorrect.

CHECKING THE PINCH ROLLER PRESSURE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- **Checking**
Press the play button to set the playback mode.

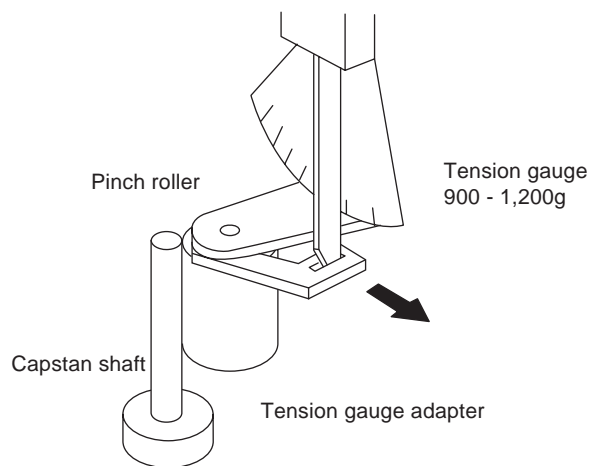


Figure 4-13.

1. Detach the pinch roller from the capstan shaft. Do not separate excessively. Or the pinch lever and pinch double action lever may disengage.
2. Engage the tension gauge adapter with the pinch roller shaft, and pull in the arrow direction.
3. Gradually return the pinch roller, and measure the pulling force when the pinch roller contacts the capstan shaft.
4. Make sure that the measured value is within setting 0.9 to 11.8 N (900 to 1,200g).

CHECKING AND ADJUSTMENT OF TENSION POLE POSITION

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- **Setting**
 1. Turn off the power switch.
 2. Open the cassette tape (T-120), and fix with tape.
 3. Set the cassette tape in loading state.
 4. Put the weight (500g) on the cassette tape.
 5. Turn on the power switch.
 6. Make the adjustment with the beginning of a T-120 tape.

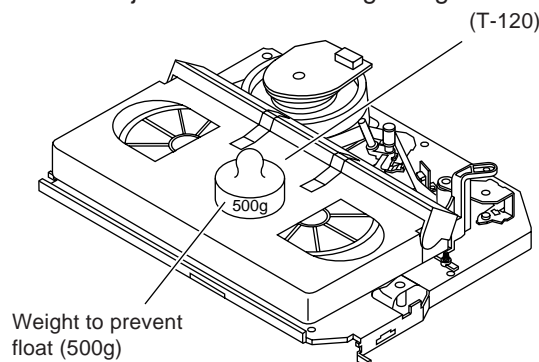
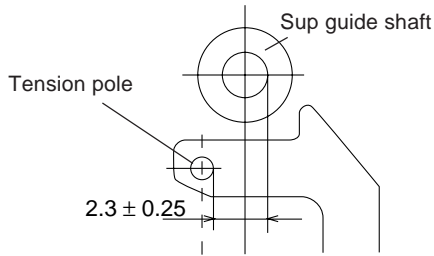


Figure 4-14.

- **Checking**
 1. Set a cassette tape, push the REC button to place the unite in the SP record mode. Now check the tension pole position.

2. Visually check to see if the right edge of the tension pole is within the 2.3 ± 0.25 from the right edge of the Sup guide shaft.



Make the adjustment with the beginning of a T-120 tape.

Figure 4-15.

At left side from the center line

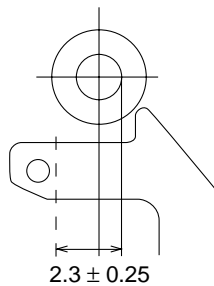


Figure 4-16.

Insert the slotted screwdriver in the tension pole adjuster, and rotate counterclockwise.

At right side from the center line

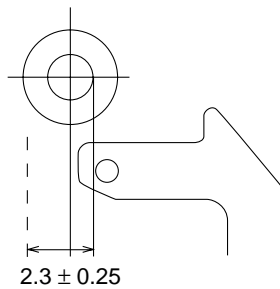


Figure 4-17.

Insert the slotted screwdriver in the tension pole adjuster, and rotate clockwise.

Tension pole adjuster adjusting range

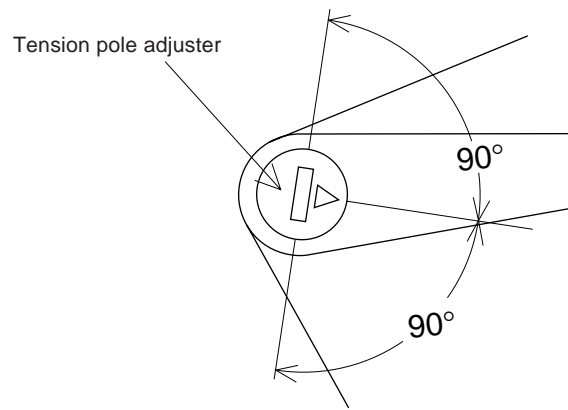


Figure 4-18.

Adjust so that the delta mark of tension pole adjuster is within 90° range (left, right).

CHECKING AND ADJUSTMENT OF RECORD/PLAYBACK BACK TENSION

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- Setting
 1. Turn off the power switch.
 2. Open the torque cassette meter and fix with tape.
 3. Set the cassette tape in loading state.
 4. Put the weight (500g) on the cassette torque meter.
 5. Turn on the power switch.

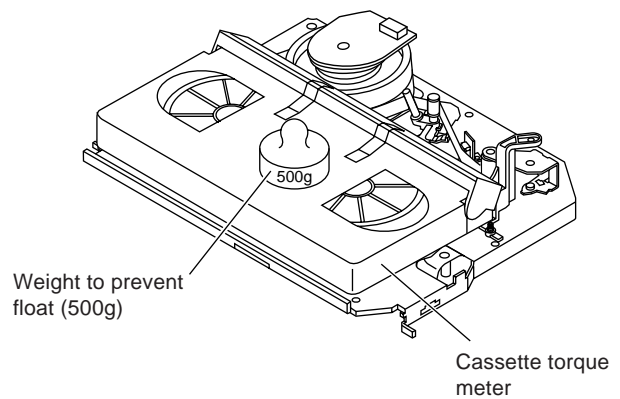


Figure 4-19.

- Checking
 1. Push the REC button to place the unit in the SP record mode.
 2. At this time ascertain that the back tension is within the setting (36.5 to 52g-cm) by seeing the indication of torque cassette meter.

- **Adjustment**

1. If the indication of torque cassette meter is lower than the setting, shift the tension spring engagement to the part A.
2. If the indication of torque cassette meter is higher than the setting, shift the tension spring engagement to the part B.

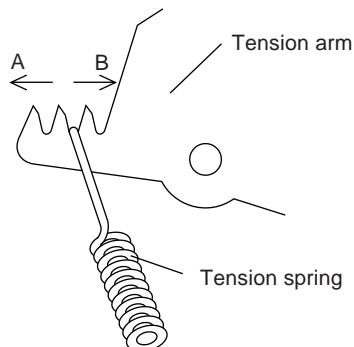
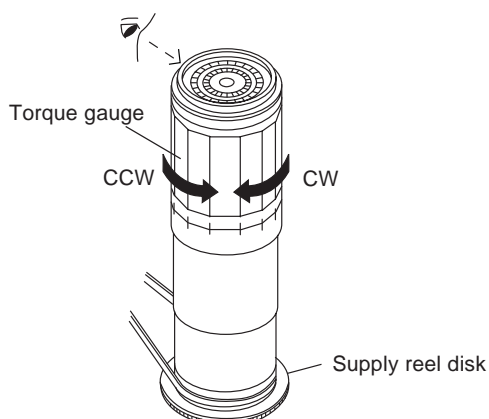


Figure 4-20.

CHECKING THE BRAKE TORQUE

- **Checking the brake torque at the supply side**



CCW:	2.9~9.8mN·m (30~100gf·cm)
CW:	4.9~13.7mN·m (50~140gf·cm)

Figure 4-21.

- **Remove the cassette housing control assembly.**

- **After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.**

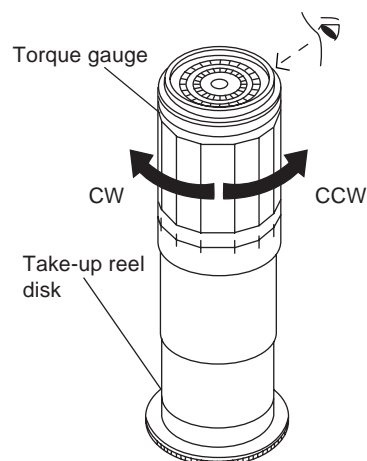
- **Setting**

1. Set a torque gauge to zero on the scale. Place it on the supply reel disk.
2. Switch from the FF mode to the STOP mode.
3. Disconnect the power cord.

- **Checking**

Turn the torque gauge at a rate of about one turn/2 sec in the CW direction/CCW direction with respect to the supply reel disk so that the reel disk and torque gauge pointer rotate at equal speed, and make sure that the value is within the setting (CW direction: 4.9 to 13.7mN·m (50 to 140gf·cm); CCW direction: 2.9 to 9.8mN·m (30 to 100gf·cm)).

- **Checking the brake torque at the take-up side**



CCW:	4.9~13.7mN·m (50~140gf·cm)
CW:	3.9~10.8mN·m (40~110gf·cm)

Figure 4-22.

- **Remove the cassette housing control assembly.**

- **After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.**

- **Setting**

1. Switch from the FF mode to the STOP mode.
2. Disconnect the power cord.
3. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.

- **Checking**

1. Turn the torque gauge at a rate of about one turn/2 sec in the CCW direction/CW direction so that the reel disk and torque gauge pointer rotates at equal speed and make sure that the value is within the setting (CCW direction: 4.9 to 13.7mN·m (50 to 140gf·cm), CW direction: 3.9 to 10.8 mN·m (40 to 110gf·cm)).
 2. Adjustment of the brake torque at the supply side and the take-up side
- Unless the supply side brake torque or take-up side brake torque is within the setting, clean the felt surface of reel disk (supply, take-up) brake lever, check again the brake torque.
 - If value cannot be set within the setting yet, replace the main brake ass'y or main brake spring.

REPLACEMENT OF A/C (Audio/Control) HEAD

1. Remove the cassette housing control assembly.
2. In unloading state unplug the power cord.

• Removal

1. Remove the screws ① ② ③, Azimuth screw, Tilt screw.
2. Unsolder the PWB fitted to the A/C head.

Notes:

1. When replacing, never touch the head. If you touched, clean with the cleaning liquid.
2. When removing the screw ③, take care so that the spring may spring out.

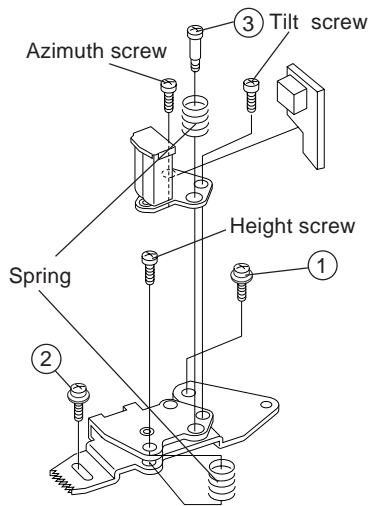


Figure 4-23.

• Replacement

1. Solder the removed PWB to the new head assembly.
2. Adjust the height from the A/C head arm (lower surface) to the A/C head plate to 10.8mm with slide calipers. (3 places of azimuth screw section, tilt screw section and A/C head front section) (See the figure below.)

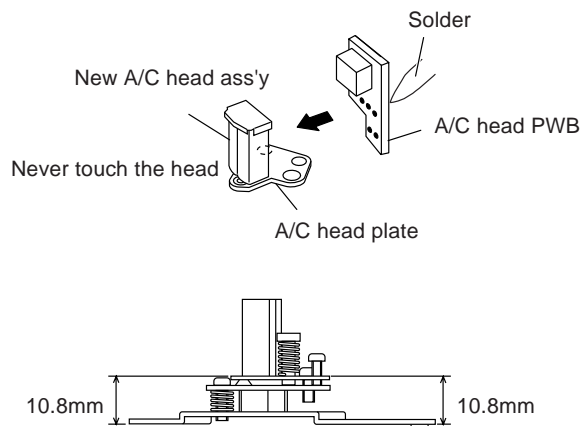


Figure 4-24.

3. Align the left end of gear of A/C head arm with the punched mark of chassis, tentatively tighten the screws ① and ② so as to ensure smooth motion of A/C head arm. Tentative tightening torque must be 0.15 to 0.20 N·m (1.5 to 2.0kgf·cm).

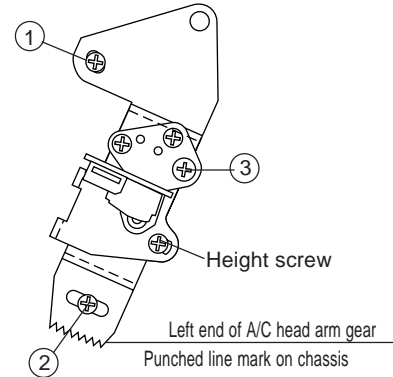


Figure 4-25.

Note:

1. If the screws ① and ② are tightened tentatively too loose, the azimuth and height of A/C head may change when they are finally tightened. Therefore care must be taken.
2. After completion of A/C head be sure to adjust tape running. (Execute the running adjustment by the method described in Page 22, 23.)

A/C HEAD HEIGHT ROUGH ADJUSTMENT

• Setting

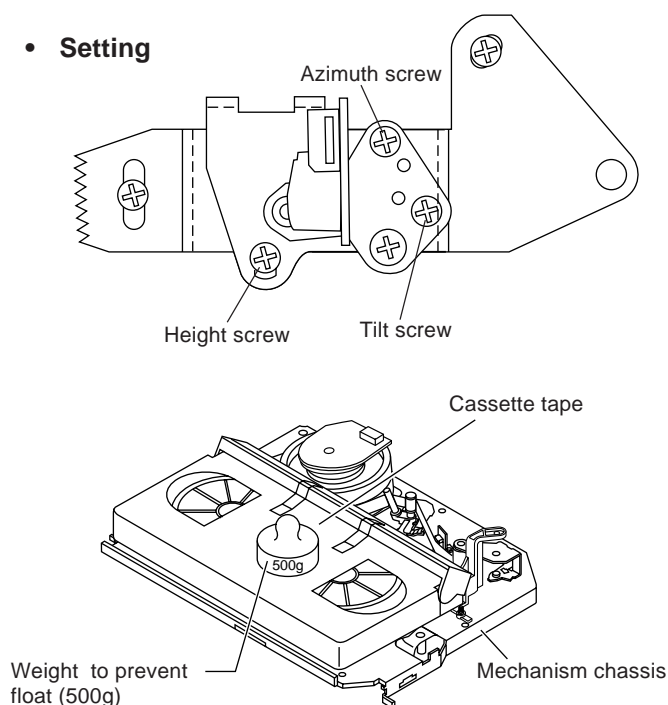


Figure 4-26.

1. Set the cassette tape in the unit.
2. Press the PLAY button to put the unit in the playback mode.
3. Roughly adjust the height of the A/C head by turning the height screw until the tape is in the position shown below.

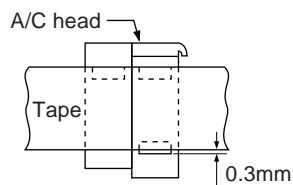


Figure 4-27.

• Adjustment

Adjust the height screw visually so that the control head is visible 0.3mm below the bottom of the tape.

HEIGHT ADJUSTMENT OF REVERSE GUIDE

1. Adjust the height from the mechanism chassis to the reverse guide lower flange to 13.38 mm, using the reverse guide height adjustment jig, in tape loading state. (Refer to Figure 4-28 (a) (b).)

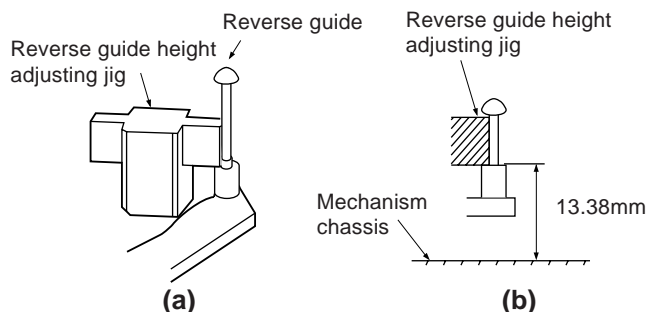


Figure 4-28.

2. Rotate counterclockwise the reverse guide height adjustment nut 1/10 turn. (For height adjustment use the reverse guide height adjustment box driver (JiGDRIVER 11055)).

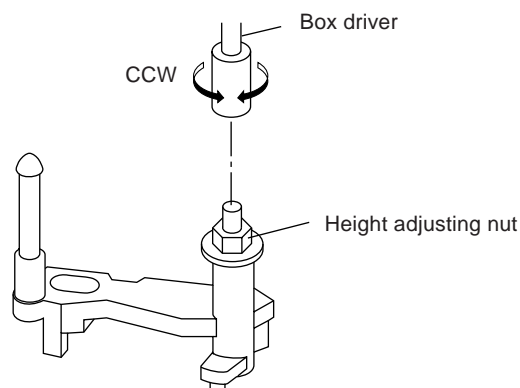
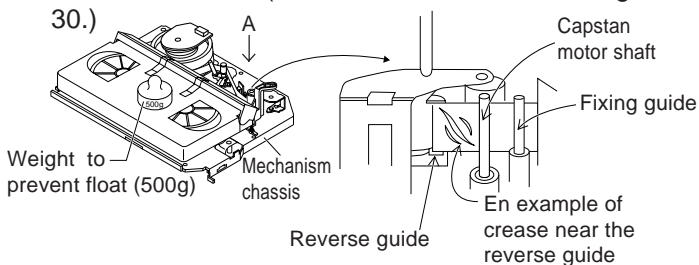


Figure 4-29.

3. Set the tape, and check for tape crease near the reverse guide in the playback mode. If crease is found, turn the reverse guide adjustment nut to remove crease. (As for crease check refer to Figure 4-30.)



* Check for crease from the A direction.

Figure 4-30.

ADJUSTMENT OF TAPE DRIVE TRAIN

1. Tape run rough adjustment

- ① Remove the cassette housing control assembly.
- ② After shortcircuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- ③ Check and adjust the position of the tension pole. (See page 18.)
- ④ Check and adjust the video search rewind back tension. (See page 17.)
- ⑤ Connect the oscilloscope to the test point for PB CHROMA envelope output (TP201). Set the synchronism of the oscilloscope to EXT. The PB CHROMA signal is to be triggered by the head switching pulse (TP202).
- ⑥ Set the alignment tape (VROATSV) to play. (Put a 500g weight on the cassette tape to prevent lift of cassette tape.)

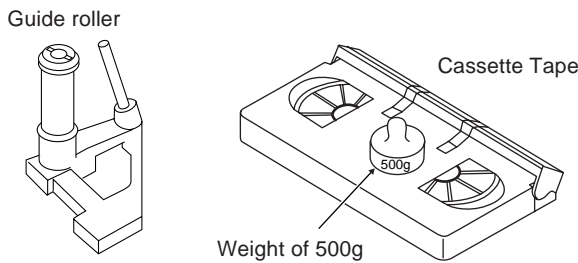


Figure 4-31.

- ⑦ Press the tracking button (+), (-) and change the envelope waveform from max to min and from min to max. At this time make sure that the envelope waveform changes nearly parallel.
- ⑧ Unless the envelope waveform changes nearly parallel, adjust the height of supply side and take-up side guide roller so that the envelope waveform changes nearly parallel. (For envelop adjustment procedure refer to Figure 4-35.)
- ⑨ Turn the tilt screw to remove the tape crease at the fixing guide flange. Playback the tape and check for tape crease at the fixing guide flange.

(1) If there is no tape crease

Turn the tilt screw clockwise so that tape crease appears once at the flange, and then return the tilt screw so that the crease disappears.

(2) If there is tape crease

Turn counterclockwise the tilt screw so that the tape crease disappears.

(Reference) If the tilt screw is turned clockwise crease appears at the lower flange.

Notes:

1. Previously set the tracking control in the center position, and adjust the envelop waveform to maximum with X value adjustment nut. Thereby the tape run rough adjustment is facilitated.
2. Especially the outlet side envelope waveform must have higher flatness.



Figure 4-32.

2. Adjustment of A/C head height and azimuth

- ① Perform the initial setting of A/C head position by the method stated in "Page 20 Replacement 3".
- ② Connect the oscilloscope to the audio output terminal.
- ③ Using the alignment tape in which 1 kHz linear audio signal has been recorded, adjust the height screw so as to get max audio output.
- ④ Using the alignment tape in which 7 kHz linear audio signal has been recorded, adjust the azimuth screw so as to get max audio output.
- ⑤ The adjustment of ③ and ④ twice or three times repeat, and finally adjust ④.

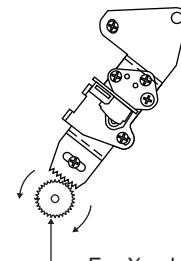


Figure 4-33.

3. Tape run adjustment

- ① Connect the oscilloscope to PB CHROMA envelope output test point, set oscilloscope sync to EXT, trigger-input the PB CHROMA signal (head switching pulse).

② Rough adjustment of X value

Tentatively fix A/C head arm screws ① and ② by the method described in Page 20 "Replacement 3".

Playback the alignment tape (VROATSV) and shortcircuit TP802. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set.

Move the A/C head with the X value adjustment gear driver (JiGDRiVER-6) by the method shown in Figure 4-33, and adjust the A/C head so as to get the maximum envelope waveform. (Note: When the A/C head is adjusted, adjust so that the maximum envelop waveform is obtained nearest the position of initial setting made in Page 20.)

- ③ Next, change the alignment tape to VROEFZCS or VROEFZHS to playback. Press the tracking button (+), (−) and change the envelope waveform from max to min and from min to max. At this time adjust the height of supply and take-up side guide roller with the adjustment driver (JiGDRIVERH-4) so that the envelope waveform changes nearly parallel.
- ④ If the tape is lifted or sunk from the helical lead surface, the PB CHROMA envelope waveform appears as shown in Figure 4-35.
- ⑤ Press the tracking button (+), (−) and make sure that the envelope waveform changes nearly parallel.
- ⑥ Finally check tape crease near the reverse guide. If tape crease is found, remove it as stated in Page 21 "HEIGHT ADJUSTMENT OF REVERSE GUIDE" item 3.

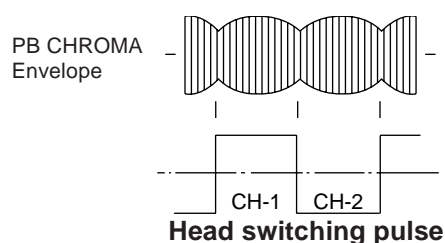


Figure 4-34.

4. A/C head X value adjustment

- ① Tentatively fix A/C head arm screws ① and ② by the method described in Page 20 "Replacement 3".
- ② Playback the alignment tape (VROEFZCS or VROEFZHS), and shortcircuit TP802. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set.

	When the tape is above the helical lead.		When the tape is below the helical lead.	
	Supply side	Take-up side	Supply side	Take-up side
Adjustment	Supply side guide roller rotated in clockwise direction (lowers guide roller) to flatten envelope.	Take-up side guide roller rotated in clockwise direction (lowers guide roller) to flatten envelope.	Supply side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The supply side guide roller is then rotated in the clockwise direction to flatten the envelope.	Take-up side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The take-up side guide roller is then rotated in the clockwise direction to flatten the envelope.

Figure 4-35.

- ③ Move the A/C head with the X value adjustment gear driver by the method shown in Figure 4-33, and adjust the A/C head so as to get the maximum envelope waveform. (Note: At this time adjust so as to get the maximum envelope waveform nearest the A/C head position which has been set in case of X value rough adjustment as stated in Page 22, 3-②.)
- ④ Tighten finally the screws ① and ②. Be sure to tighten at first the screw ① and then the screw ②. Final tightening torque is 0.6N·m (If the screw ② is tightened first, the X value may deviate.)
- ⑤ Adjust the playback switching point (Refer to the electric adjustment method.)
- ⑥ Playback the self-picture-recorded tape, and check the flatness of envelope waveform and sound.

Notes:

When the A/C head X value adjustment is performed, be sure to perform at first X value rough adjustment (refer to Page 22, 3-②).

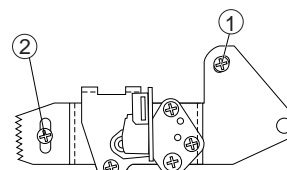


Figure 4-36.

REPLACEMENT OF THE CAPSTAN D.D. (DIRECT DRIVE) MOTOR

- Remove the mechanism from the main PWB (refer to Page 7 "1. When removing the mechanism from the main PWB").

• Removal (Follow the order of indicated numbers.)

1. Remove the reel belt ①.
2. Remove the three screws ②.

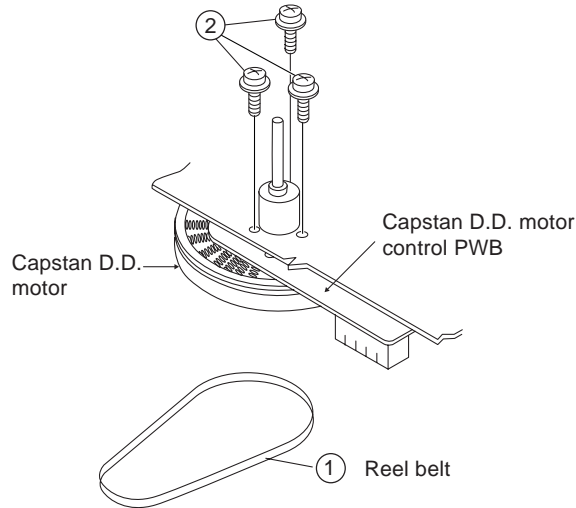


Figure 4-37.

• Reassembly

1. Taking care so that the capstan shaft does not contact the mechanism chassis, set its position on the mechanism chassis, and then install with the three screws.
2. Install the reel belt.

Notes:

1. After installing the capstan D.D. motor, be sure to rotate the capstan D.D. motor and check the movement.
2. Set the tape, and check for the tape crease near the reverse guide in the playback mode. Adjust the A/C head and azimuth as stated in Page 22 item 2. If crease is found, adjust as stated in Page 21 "HEIGHT ADJUSTMENT OF REVERSE GUIDE".

REPLACEMENT OF DRUM D.D. MOTOR

1. Set the ejection mode.
2. Withdraw the main power plug from the socket.

• Removal (Perform in numerical order.)

1. Disconnect the FFC cable ①.
2. Unscrew the D.D. stator assembly fixing screws ②.
3. Take out the D.D. stator assembly ③.
4. Unscrew the D.D. rotor assembly fixing screws ④.
5. Take out the D.D. rotor assembly ⑤.

Notes:

1. In removing the D.D. stator assembly, part of the drum earth spring pops out of the pre-load collar. Be careful not to lose it.
2. Install, so that the D.D. rotor ass'y and upper drum ass'y mounting direction check holes align. (Align the upper drum dent with the rotor hole.)
3. Be careful not to damage the upper drum or the video head.
4. Protect the hole elements from shock due to contact with D.D. stator or D.D. rotor ass'y.
5. After installation adjust the playback switching point for adjustment of servo circuit.

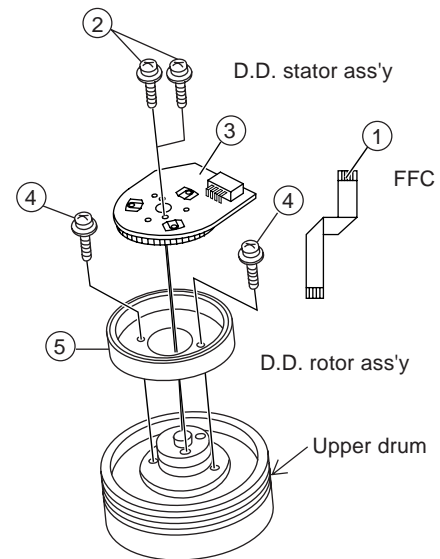


Figure 4-38.

REPLACING THE UPPER AND LOWER DRUM ASSEMBLY

- Replacement (Perform in the numerical order)
- ① Remove the motor as stated in Page 24 D.D. motor replacement.
- ② Remove the drum earth brush ass'y ②.
- ③ Remove the drum base ③ from the upper and lower drum assembly ①.

[Cares when replacing the drum]

1. Be careful so that the drum earth brush is not lost.
2. Do not touch directly the drum surface.
3. Fit gently the screwdriver to the screws.
4. Since the drum assembly is an extremely precise assembly, it must be handled with utmost care.
5. Make sure that the drum surface is free from dust, dirt and foreign substances.
6. After replacing the drum be sure to perform the tape running adjustment.
 - Playback switching point adjustment
 - X-position adjustment and check
 - Standard and x-3 slow tracking adjustment
7. After replacing the drum clean the drum.

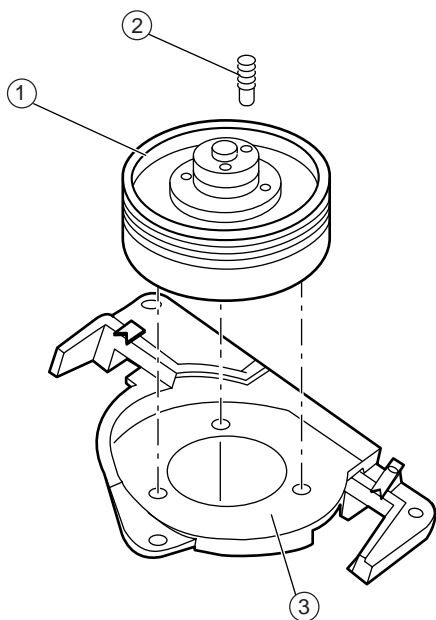


Figure 4-39.

ASSEMBLING OF PHASE MATCHING MECHANISM COMPONENTS

- Assemble the phase matching mechanism components in the following order.

1. Assemble the pinch roller assembly and pinch drive cam.
2. Mounting the shifter (on the back of the mechanism chassis).
3. Mounting the master cam (on the back of the mechanism chassis).
4. Assemble the connection gear, slow brake and loading motor parts.

- Pinch drive cam and pinch roller assembling method.

(Place the following parts in position in numerical order.)

- (1) Reverse drive lever ①
- (2) Reverse guide spring ②
- (3) Reverse guide lever ass'y ③
- (4) Reverse guide height adjusting nut ④
- (5) Pinch drive cam ⑤
- (6) Pinch roller ass'y ⑥
- (7) Open lever ⑦

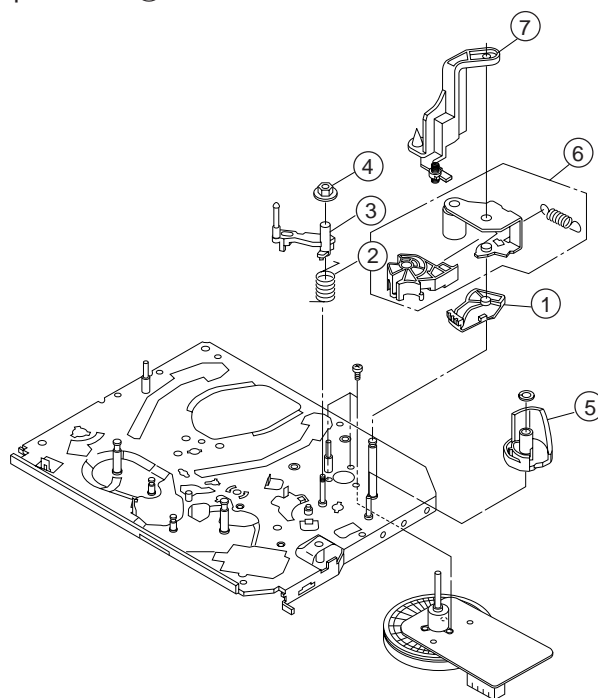
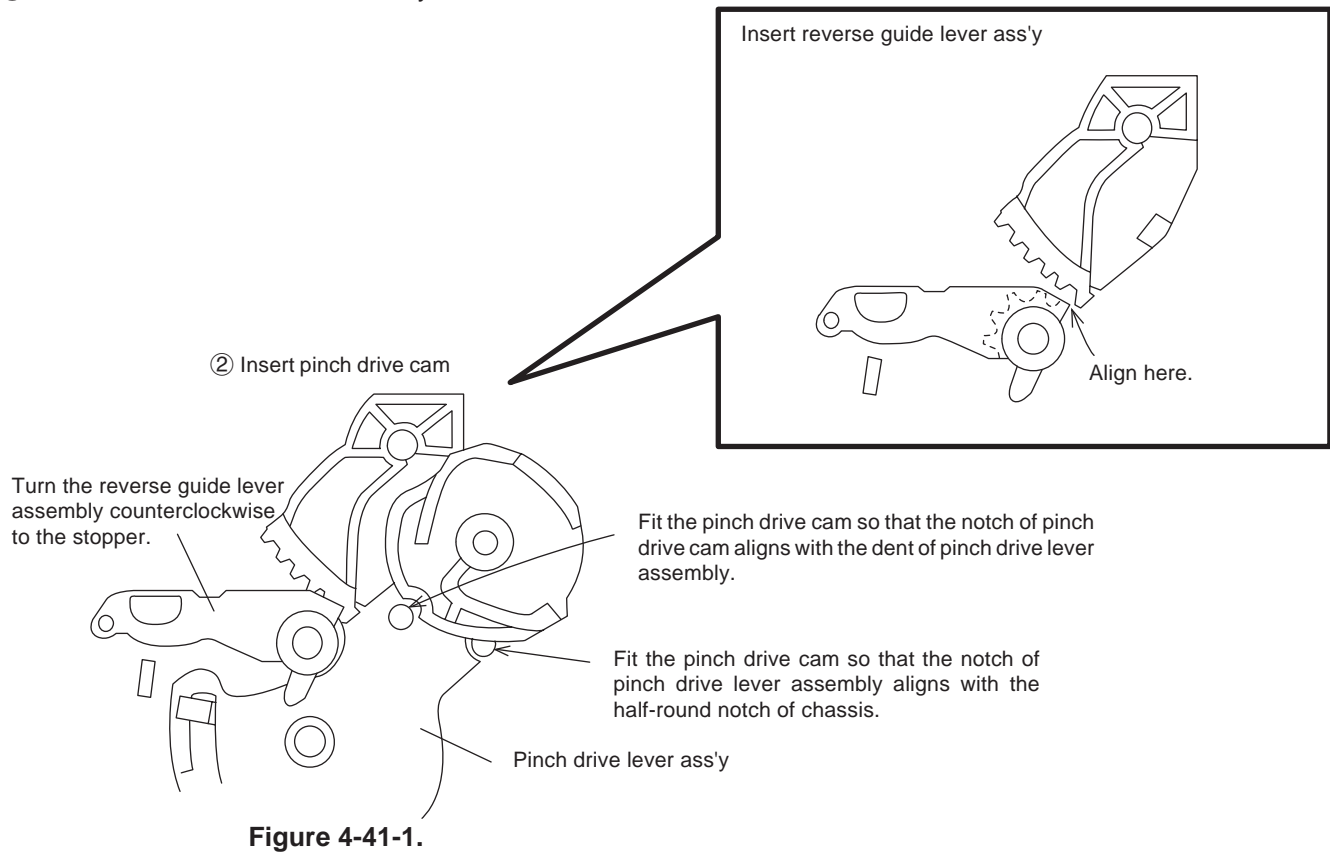


Figure 4-40.

① Insert Reverse Guide Lever Ass'y



② Insert Pinch Roller/Pinch Double Action Lever Ass'y.

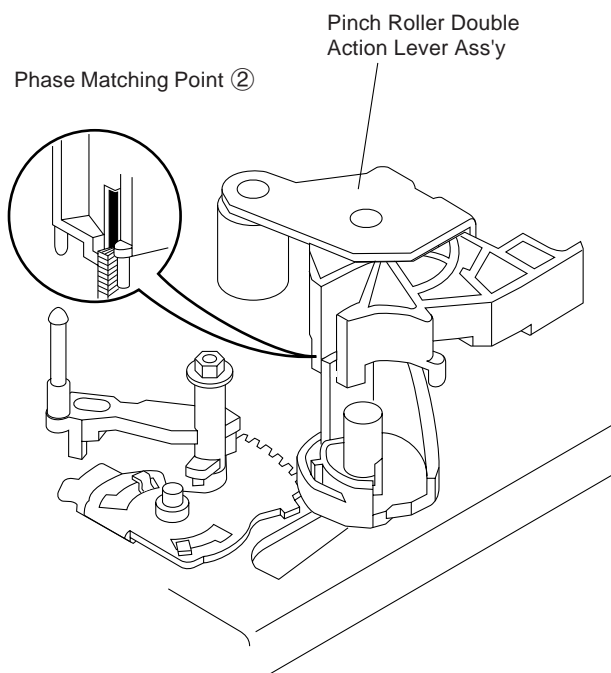


Figure 4-41-2.

③ Insert Open Lever.

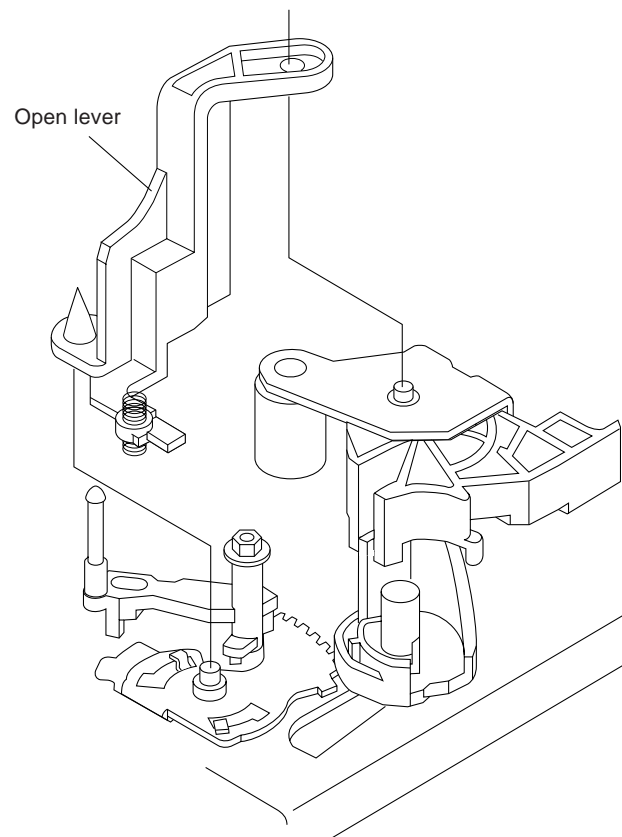
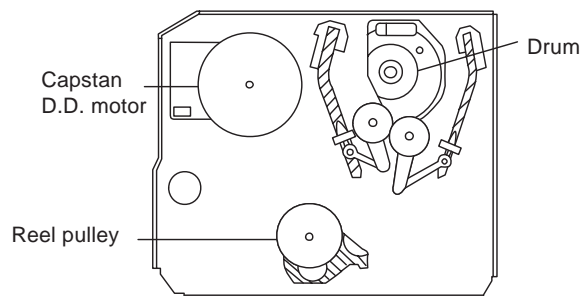


Figure 4-41-3.

INSTALLING THE SHIFTER



(Bottom side of mechanism chassis)

Figure 4-42.

1. Make sure that the loading gear is at the point ① as shown below.
2. Install, paying attention to insert point ⑤ and release point ③.
3. For the phase matching at the insert point ①, see the point ② as shown below.
4. Finally fix the inserts ① and ④.

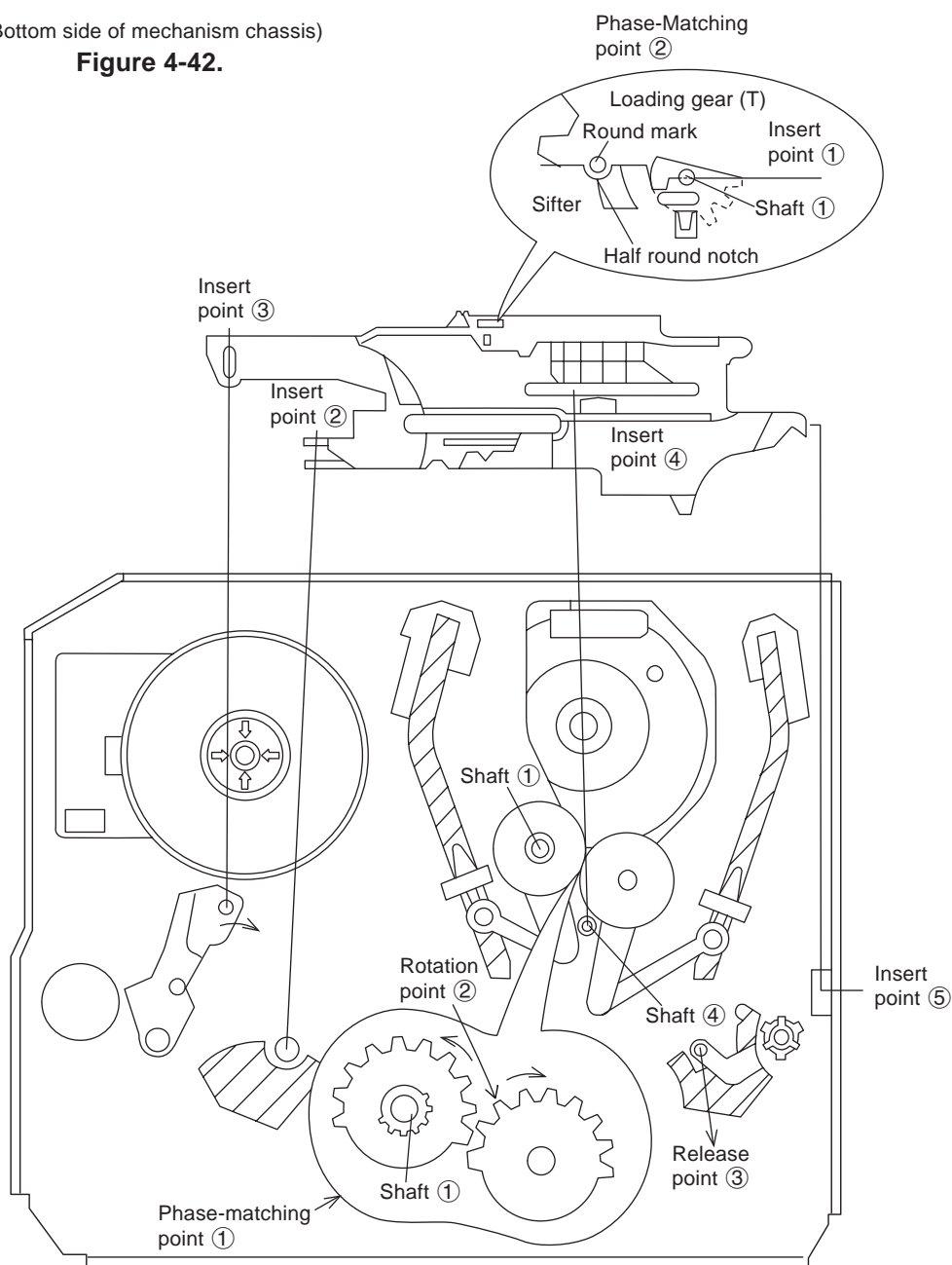


Figure 4-43.

INSTALLING THE MASTER CAM (AT REAR SIDE OF MECHANISM CHASSIS)

1. Make sure beforehand that the shifter is at the point as shown below.
2. Place the master cam in the position as shown below.

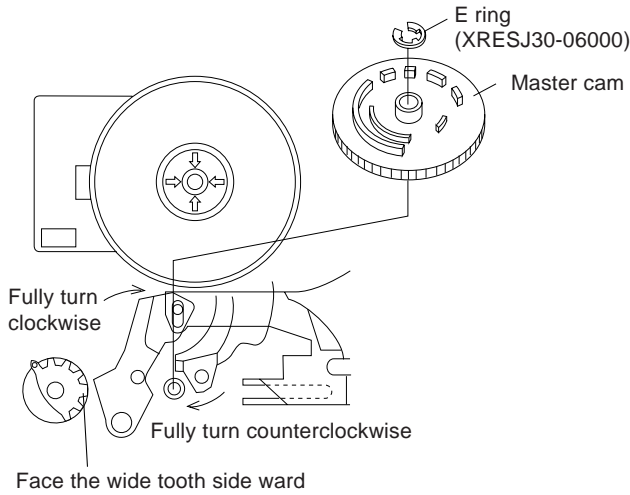
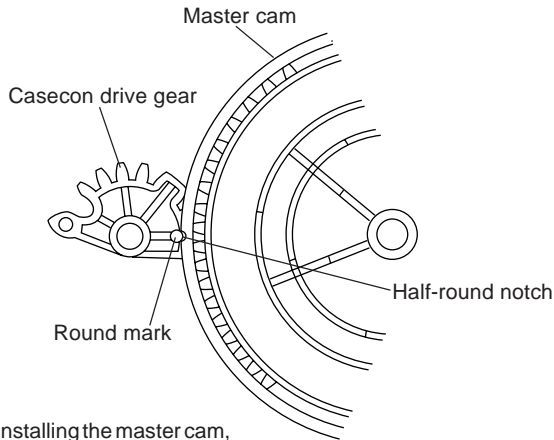


Figure 4-44-1.

Note:

See the figure below for the phase matching between the master cam and the casecon drive gear.

3. Finally fix with the E ring.



When installing the master cam, align the casecon drive gear round mark with the half-round notch of master cam.

Figure 4-44-2.

REPLACEMENT OF LOADING MOTOR

• Removal

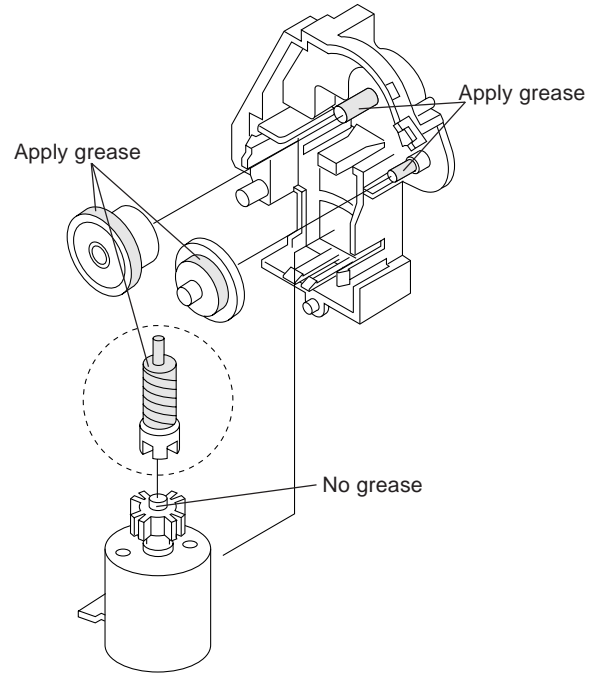


Figure 4-45.

• Replacement

Remove the loading motor, and install the replacement loading motor as shown below.

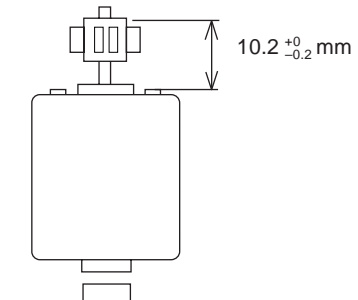


Figure 4-46.

The loading motor pressing-in must be less than 14.7 N (15 gf).

Adjust the distance between motor and pulley to $10.2^{+0}_{-0.2}$ mm).

ASSEMBLY OF CASSETTE HOUSING

1. Drive Gear and R Drive angle ass'y

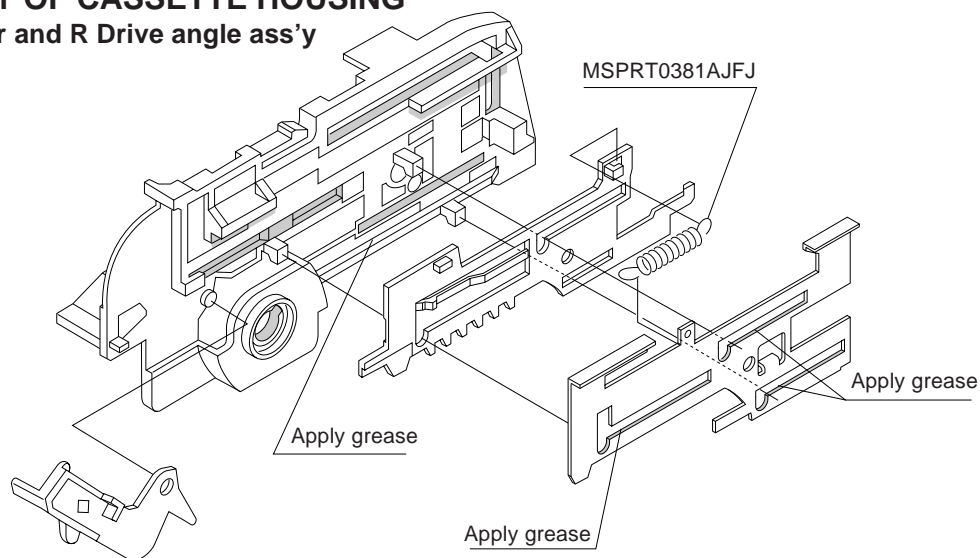


Figure 4-47.

2. Synchro Gear, Drive Gear L and Drive Gear R

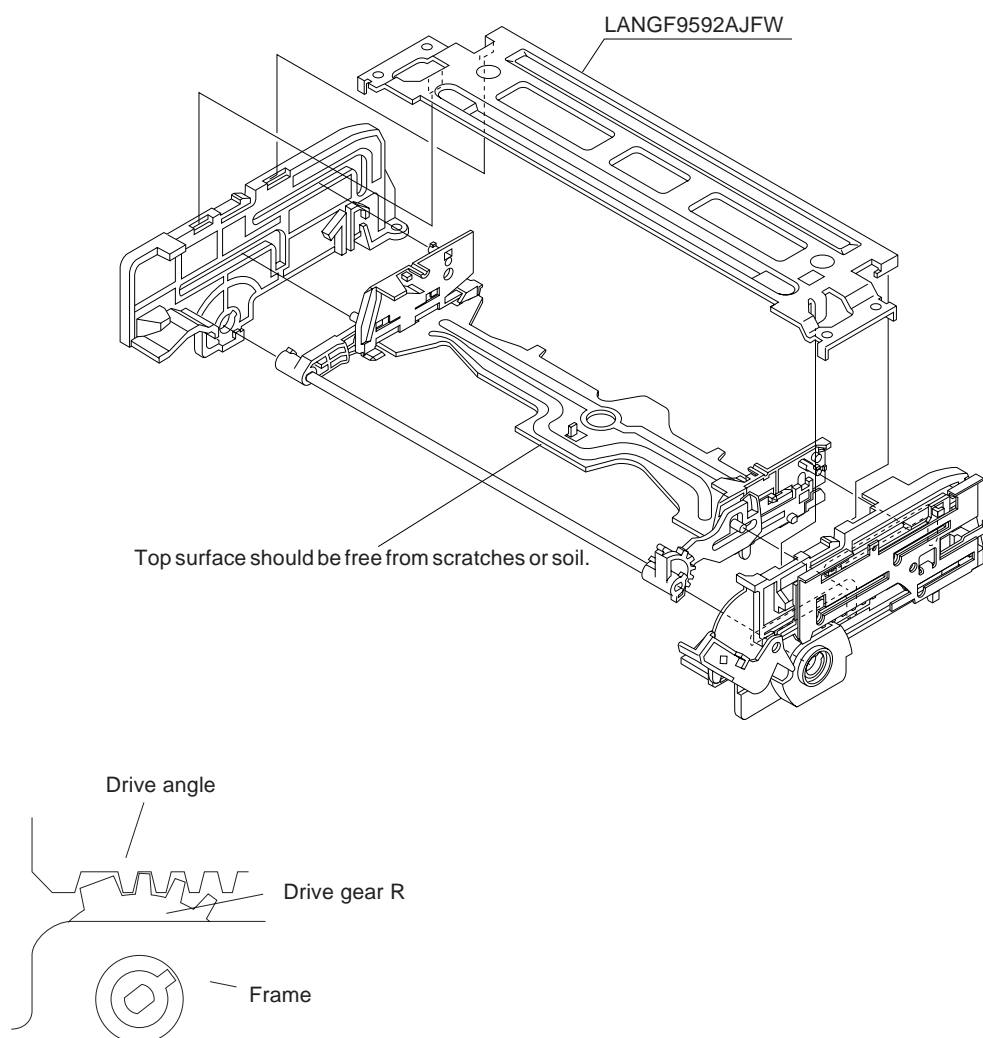


Figure 4-48.

5. ELECTRICAL ADJUSTMENT

Notes:

• Before the adjustment:

Electrical adjustments discussed here are often required after replacement of electronic components and mechanical parts such as video heads.

Check that the mechanism and all electric components are in good working condition prior to the adjustments, otherwise adjustments can not be completed.

• Instruments required:

- Color TV monitor
- Audio signal generator
- Blank video cassette tape
- Screwdriver for adjustment
- RF signal generator
- Dual-trace oscilloscope
- AC milli-voltmeter
- Alignment tape (VROEFZCS)
- Color bar generator

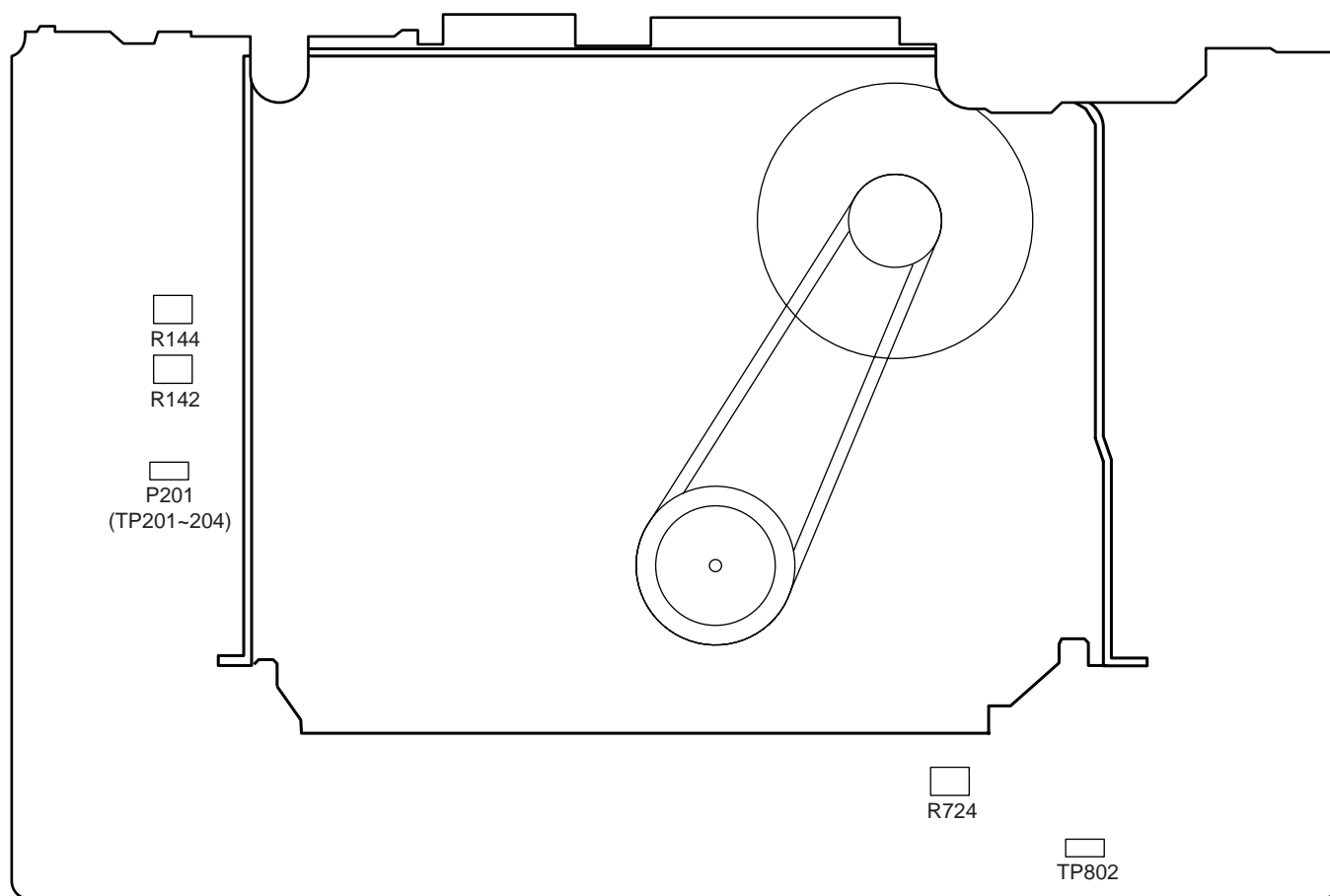


Figure 5-1.

SERVO CIRCUIT ADJUSTMENT

5-1 ADJUSTMENT OF HEAD SWITCHING POINT

Measuring instrument	Dual-trace oscilloscope
Mode	Playback
Cassette	Alignment tape (VROEFZCS)
Test point	VIDEO OUT jack to CH2 TP202 (Sig.)~TP203 (GND) to CH1
Control	R724 Head switching point adjustment control
Specification	$5.5 \pm 0.5H$ (lines)

1. Remove the front panel and play the alignment tape.
2. Connect a dual-trace oscilloscope to the VIDEO OUT jack and TP202 (Sig.) and TP203 (GND). (Trigger the oscilloscope with the head switching pulse on TP202.)
3. Playback the alignment tape, and then short circuit between TP802 on the main PWB, and press both CH button (+) and CH button (–) at same time.
4. Adjust R724 so that the leading edge of the head switching pulse is 5.5H (lines) ahead of the vertical sync as shown in Figure 5-2.
5. Cancel the short circuited.

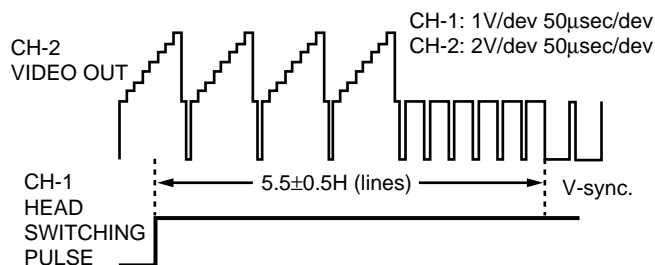


Figure 5-2.

5-2 ADJUSTMENT OF FV (False Vertical Sync) OF STILL PICTURE

Measuring instrument	Color TV monitor
Mode	Playback still
Cassette	Self-recorded tape (SP mode) (See Note below 2)
Control	Tracking control buttons(+) or (–)
Specification	No vertical jitter of picture

1. Play a cassette which was recorded by the unit in SP mode.
2. Press the PAUSE/STILL button to freeze the picture.
3. Look at the monitor screen and adjust (+) or (–) TRACKING buttons so that the vertical jitter of the picture is minimized.
4. Play and freeze the self-recorded tape in EP mode and make sure vertical jitter of the picture is not noticeable.

Note:

- 1 The FV goes back to the it's initial state when the unit is put into the system controller reset mode due to power failure, etc.
In this case, preset the FV once again.
- 2 Self-recorded tape is a cassette whose program was recorded by the unit being adjusted.

5-3 CHECKING OF OFF TRACK

Measuring instrument	Color TV monitor
Mode	Playback
Cassette	Self-recorded tape (EP mode) (See Note below)
Control	Tracking control buttons(+) or (–)
Specification	No Poor picture and Hi-Fi sound

1. Play a cassette which was recorded by the unit in EP mode.
2. Short circuit between TP802 on the main PWB, and press both CH button (+) and CH button (–) at same time.
3. Press the tracking buttons (+) and (–) 20 times each to bring the tracking off center. Make sure that:
 - 1) There is nothing unusual on the playback screen.
 - 2) There is nothing unusual in the Hi-Fi sound (for the Hi-Fi models only).
4. Cancel the short circuit.

Note:

Self-recorded tape is a cassette whose program was recorded by the unit being adjusted.

MTS CIRCUIT ADJUSTMENT (HI-FI MODELS ONLY)

5-4 ADJUSTMENT OF SIF-INPUT LEVEL

Measuring instrument	AC milli-voltmeter and RF signal generator.
Mode	E-E
Input signal	RF CH-10 (at 300Hz 30% MOD.)
Test point	AUDIO OUT jack (R channel)
Control	R142(S-IF ADJ.)
Specification	Minimized

1. Feed the RF signal CH-10 (at 300Hz 30% MOD.) to antenna terminal.
2. Connect the AC milli-voltmeter to right channel output terminal.
3. Set the audio signal to 300Hz and the modulation factor to 30% (Left channel only) and adjust R142 (S-IF ADJ.) so that the right channel output becomes minimized.

5-5 ADJUSTMENT OF STEREO SEPARATION

Measuring instrument	AC milli-voltmeter and RF signal generator.
Mode	E-E
Input signal	RF CH-10 (at 3kHz 30% MOD.)
Test point	AUDIO OUT jack (R channel)
Control	R144 (SEPARATION ADJ.)
Specification	Minimized

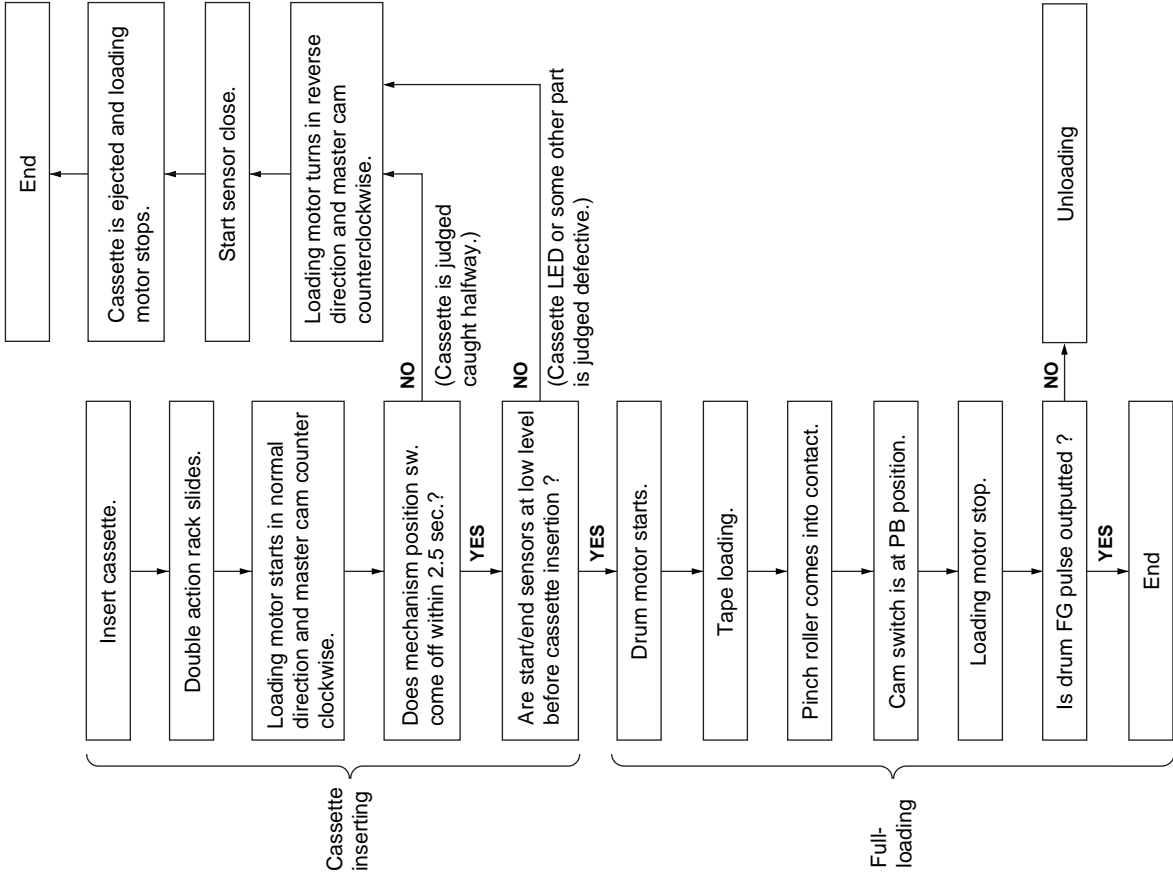
1. Feed the RF signal CH-10 (at 3kHz 30% MOD.) to antenna terminal.
2. Connect the AC milli-voltmeter to right channel output terminal.
3. Set the audio signal to 3kHz and the modulation factor to 30% (Left channel only) and adjust R144 (SEPARATION ADJ.) so that the right channel output becomes minimized.
4. Repeat step 5-4 ADJUSTMENT OF SIF-INPUT LEVEL, until obtain a specification.

6. MECHANISM OPERATION FLOWCHART AND TROUBLESHOOTING GUIDE

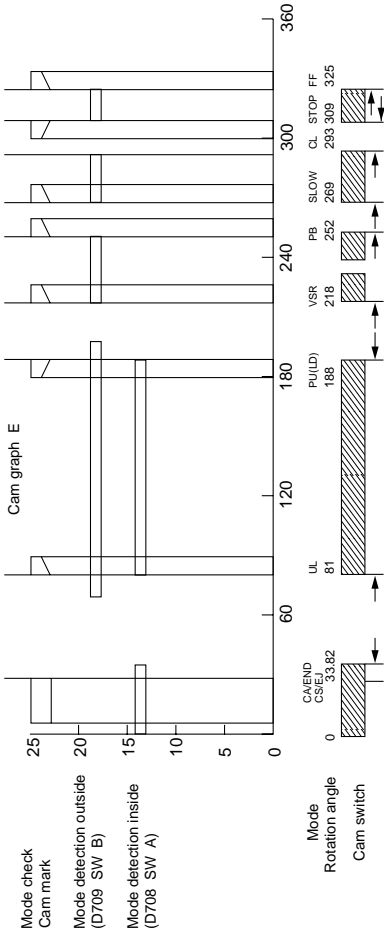
MECHANISM OPERATION FLOWCHART

* This flowchart describes the outline of the mechanism's operation, but does not give its details.

CASSETTE INSERTION → STOP



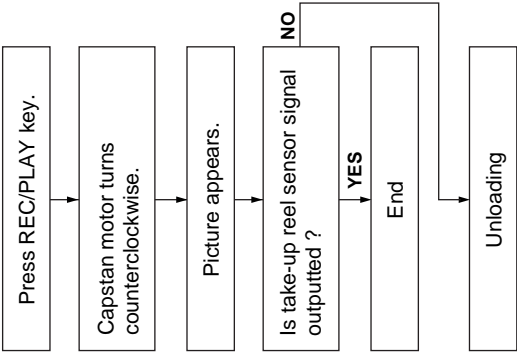
F mechanical timing



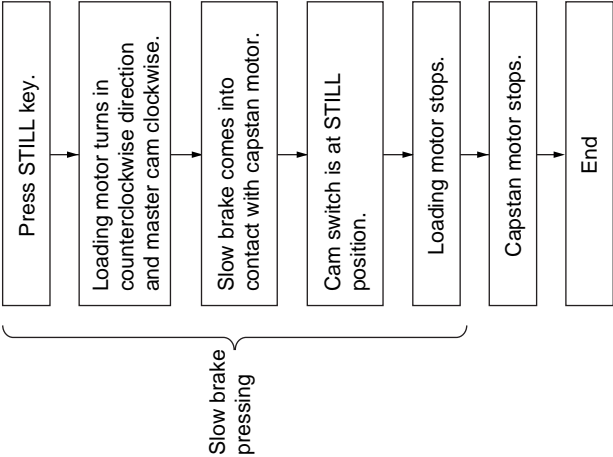
Mode	EJ	UL	PU	VSR	PB	SLOW	CL	STOP	FF
Mode detection outside	0	0	0	1	0	1	0	0	1
Mode detection inside	1	0	1	1	0	0	1	0	0
S sensor	1	1	0	1	1	0	0	0	0
S sensor open	0	0	0	0	0	0	0	0	0
S sensor close	1	1	1	1	1	1	1	1	1

	Mode detection inside	Mode detection outside
Sensor A	1	0
Sensor B	0	1
CS/EJ	1	0
ULD	1	1
PU LD	1	1
VSR	0	1
PB	0	0
SLOW	0	1
CL	0	0
STOP	0	0
FF	0	0

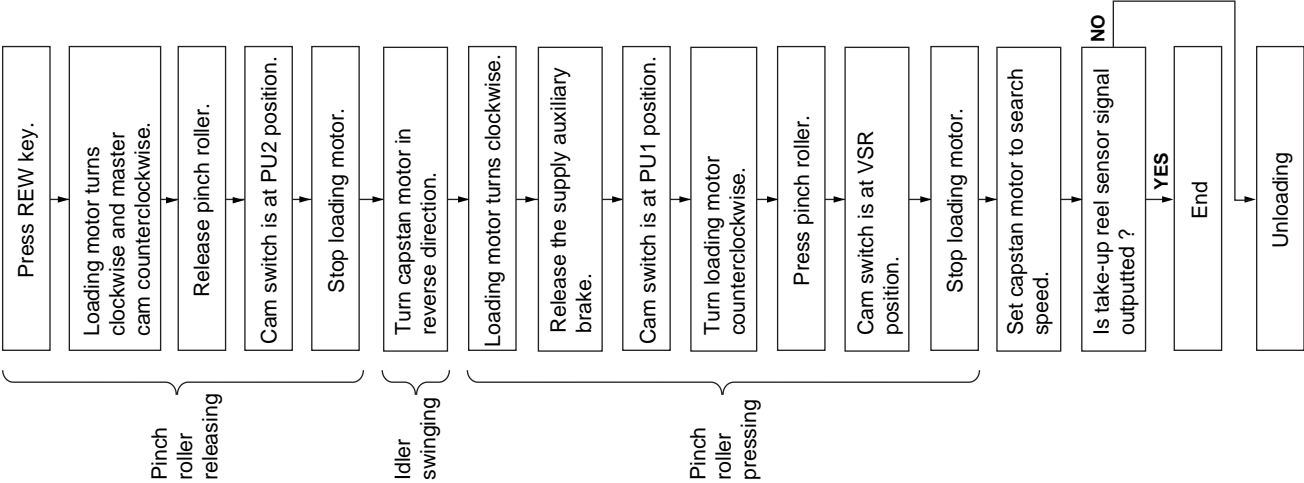
STOP → REC/PLAY



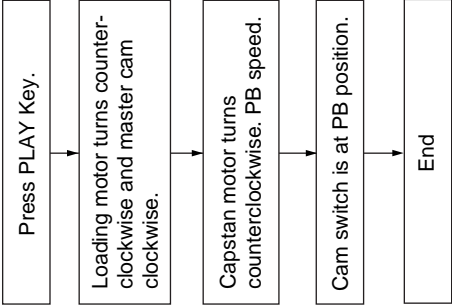
PLAY → STILL



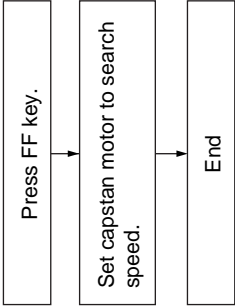
PLAY → VSR



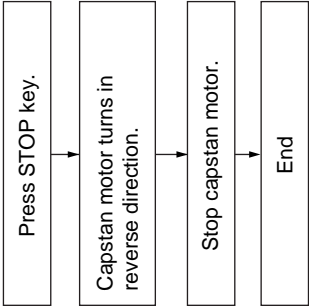
VSR → PLAY



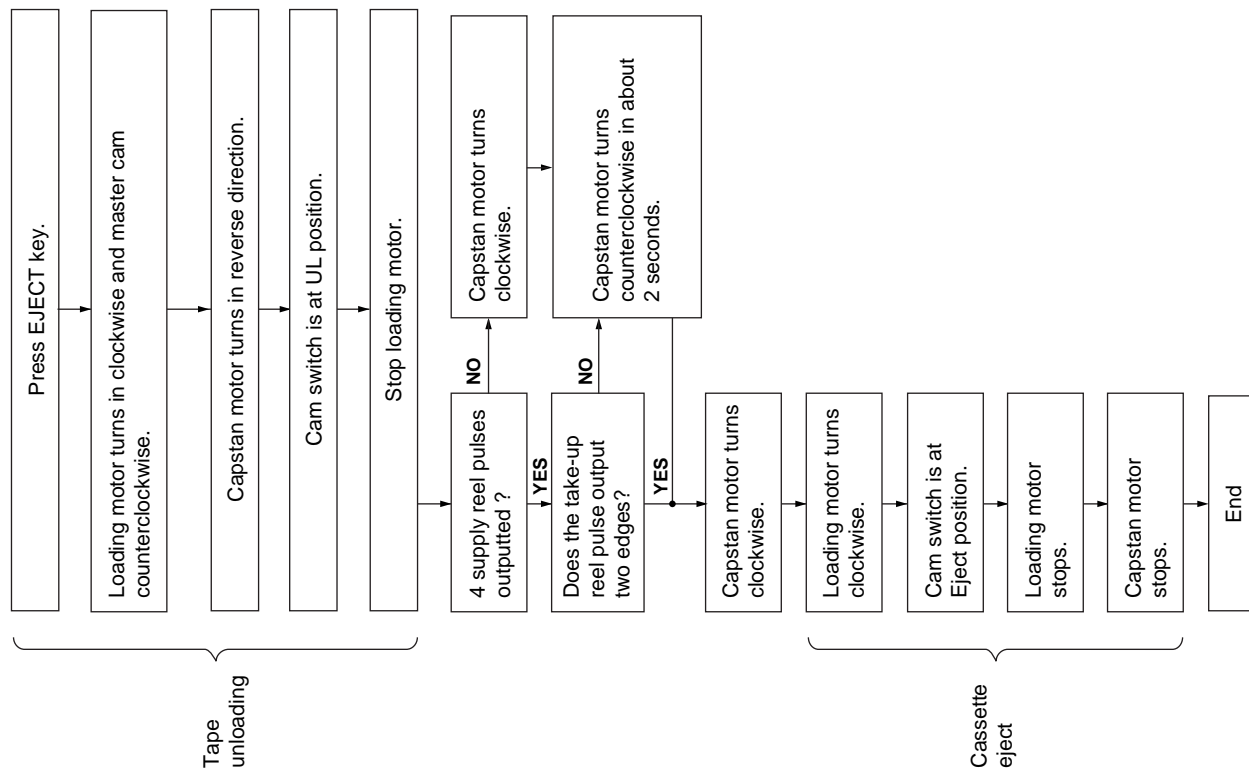
PLAY → VSF



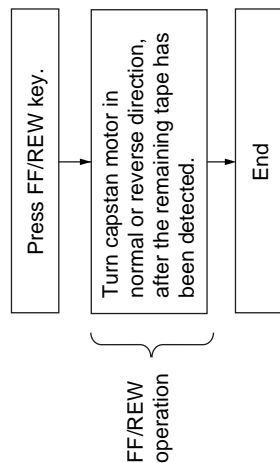
REC/PLAY → STOP



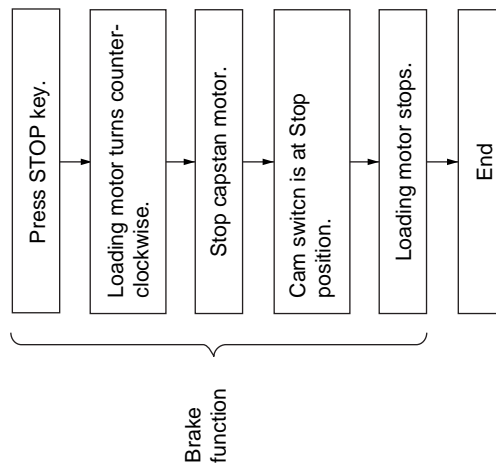
STOP → CASSETTE EJECT



STOP → FF/REW



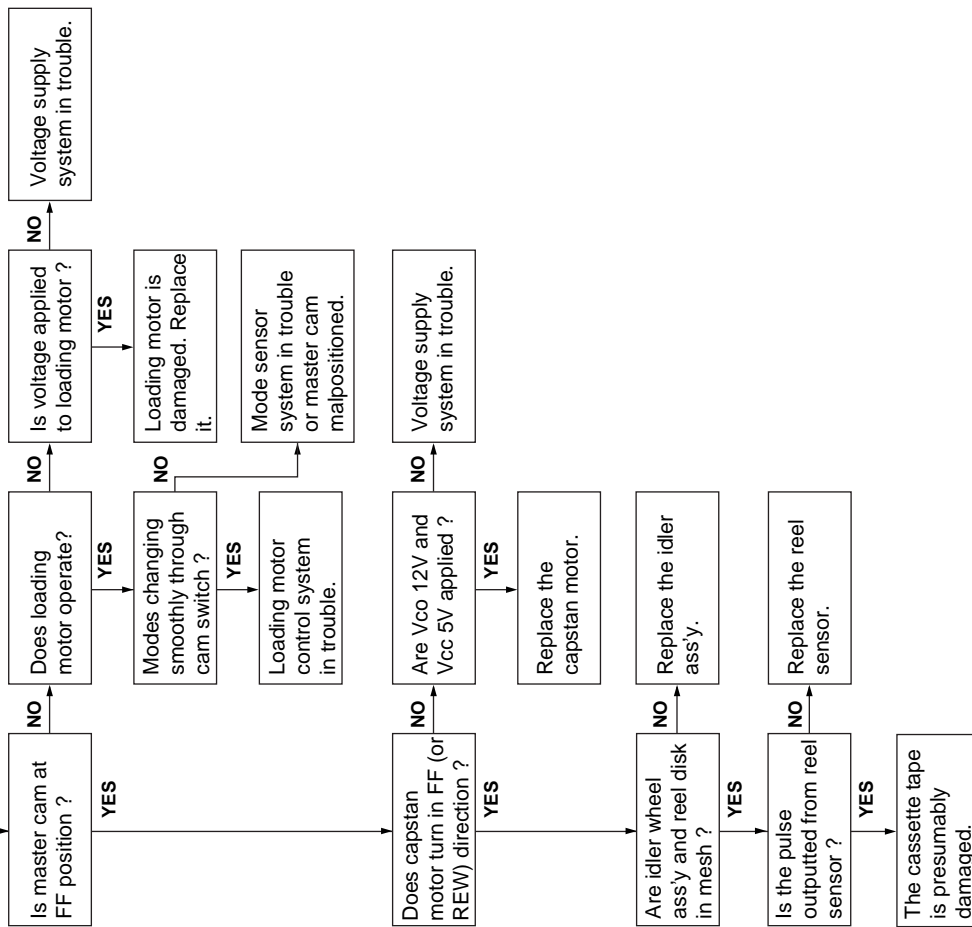
FF/REW → STOP



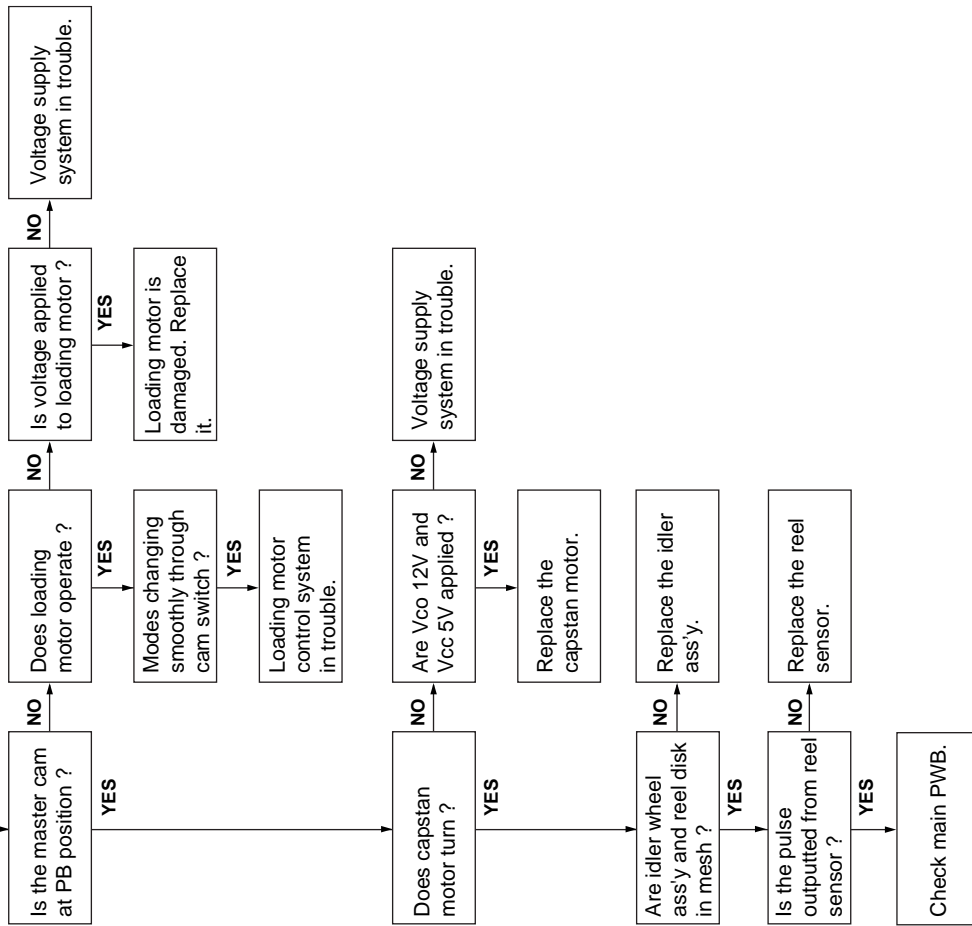
MECHANISM TROUBLESHOOTING

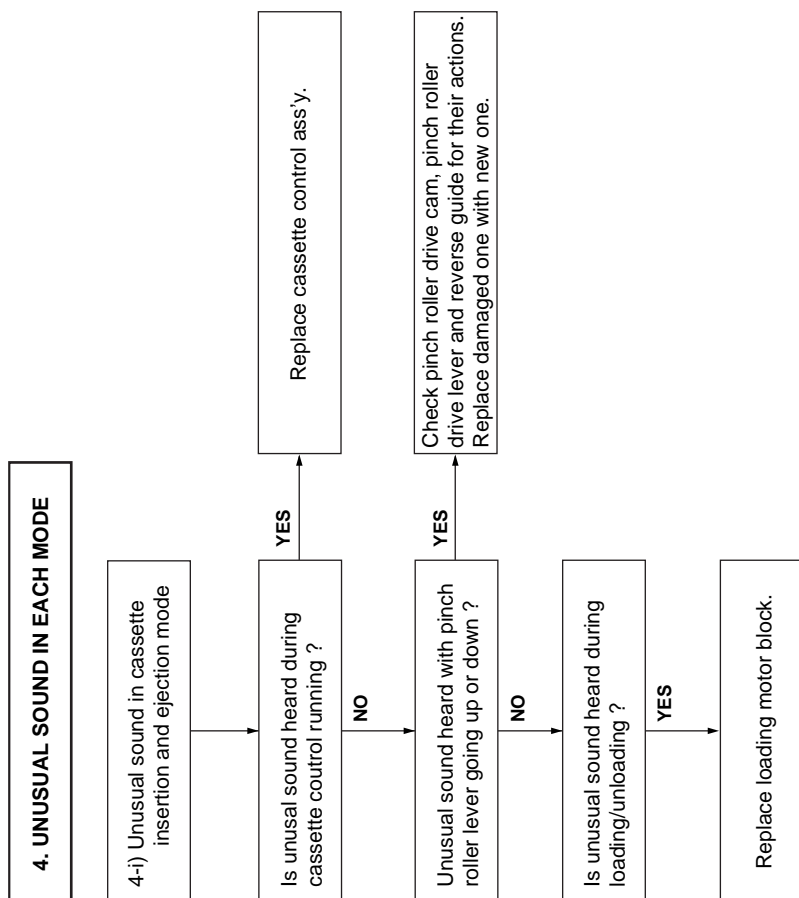
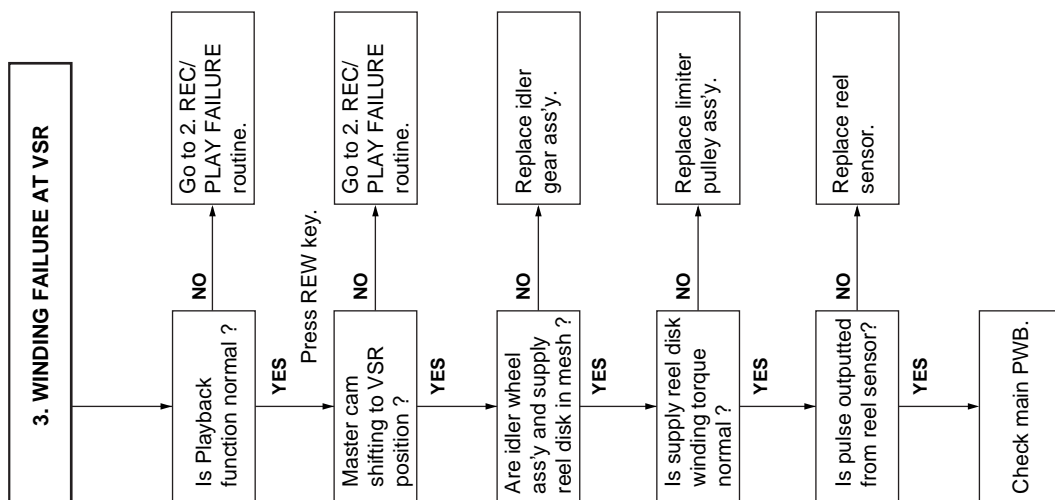
1. FF/REW FAILURE (NO TAPE WINDING)

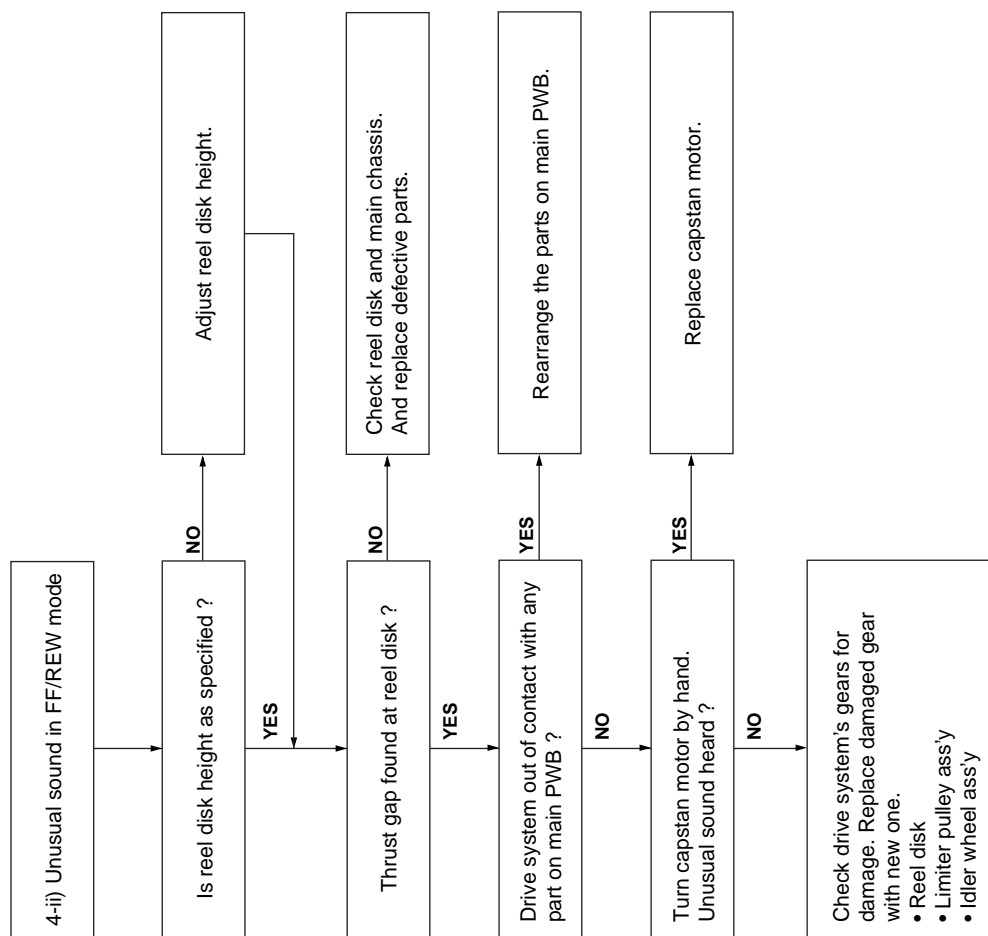
Press FF key.



2. REC/PLAY FAILURE (MODE RELEASE)

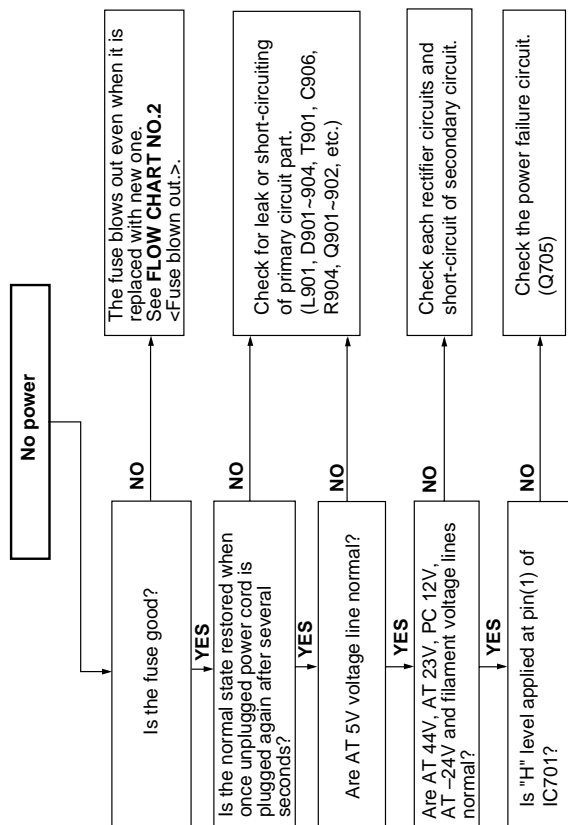




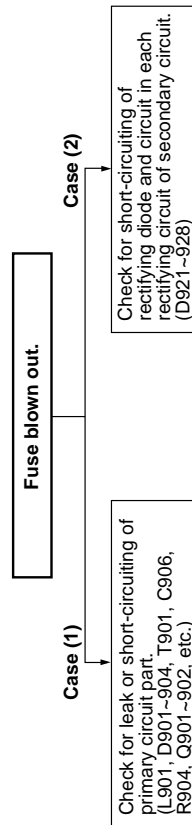


7. TROUBLESHOOTING

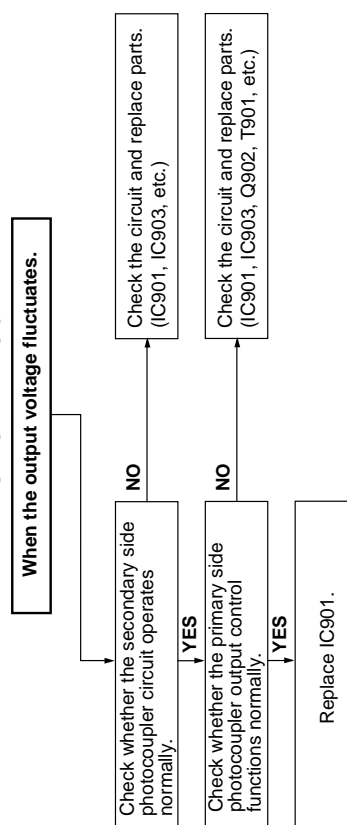
FLOW CHART NO.1



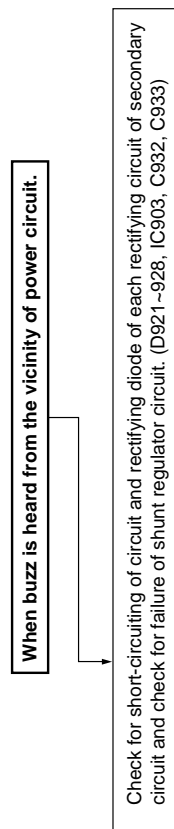
FLOW CHART NO.2



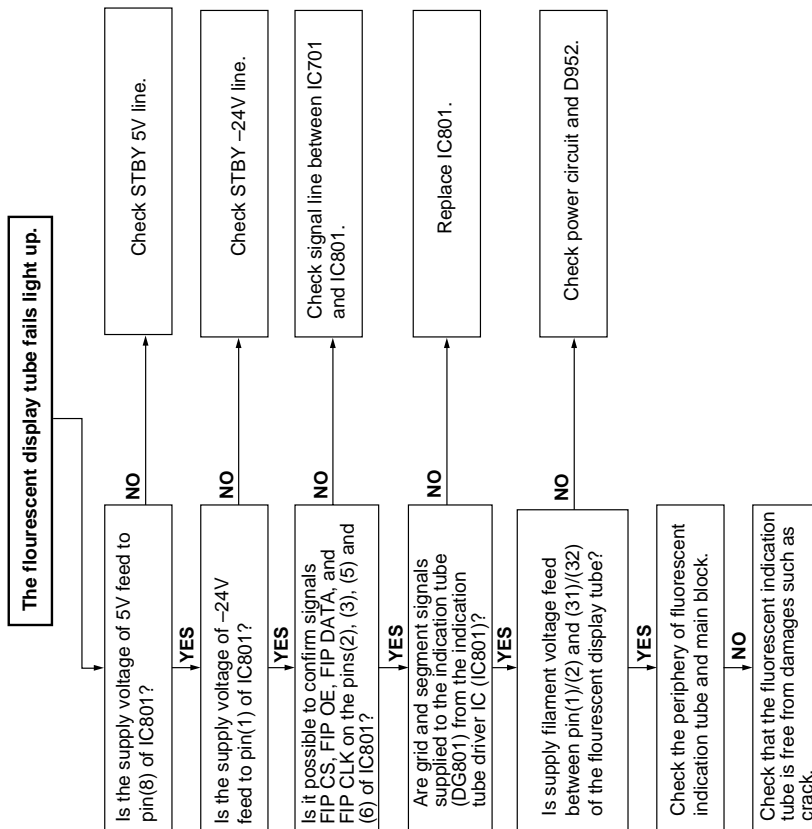
FLOW CHART NO.3



FLOW CHART NO.4

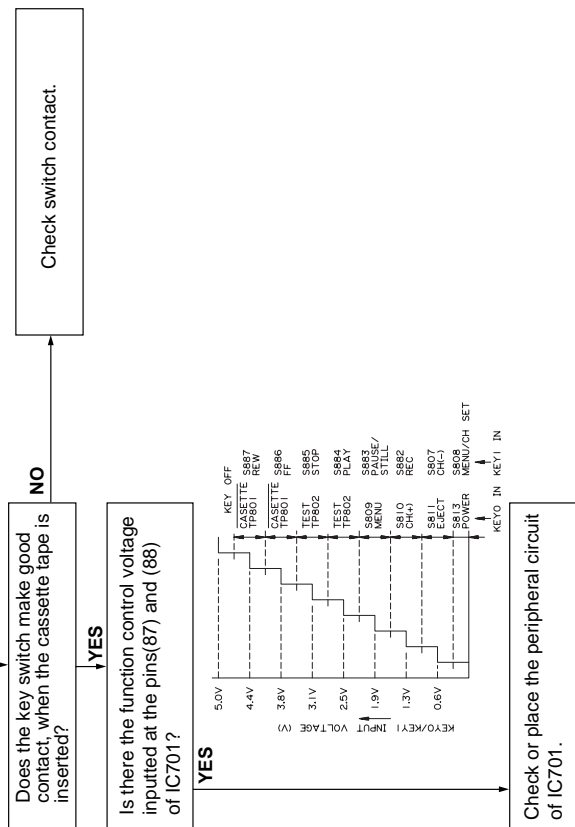


FLOW CHART NO.5



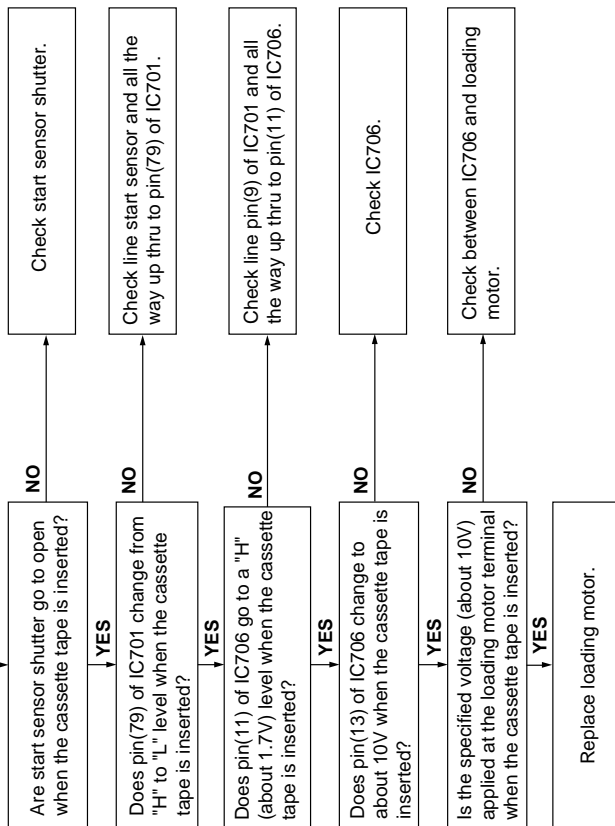
FLOW CHART NO.6

Key-in input is not received.



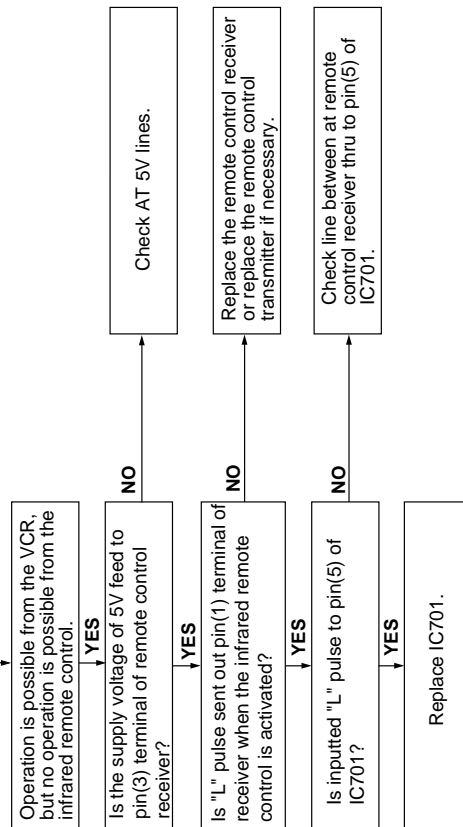
FLOW CHART NO.8

A cassette tape is not take in.



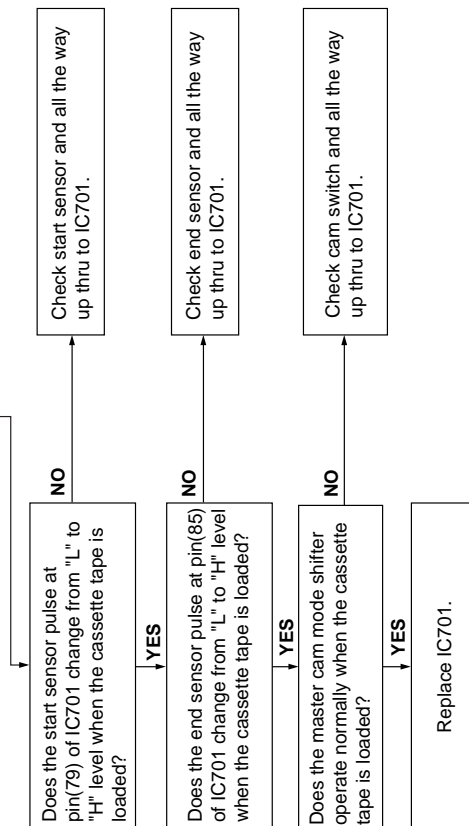
FLOW CHART NO.7

No operation is possible from the infrared remote control.



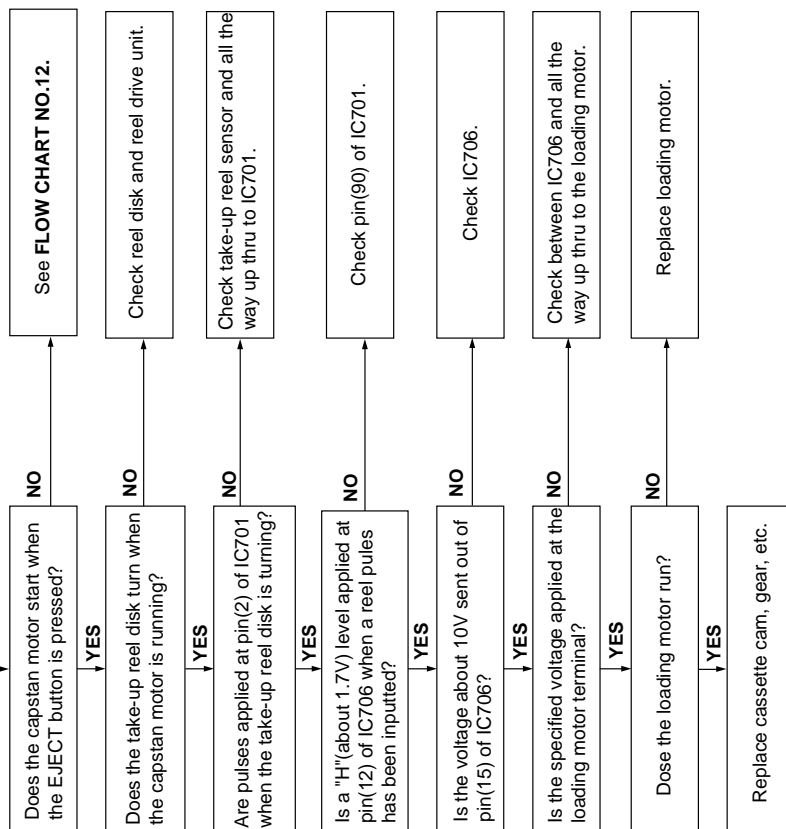
FLOW CHART NO.9

A cassette tape is taken in, but ejected at once.



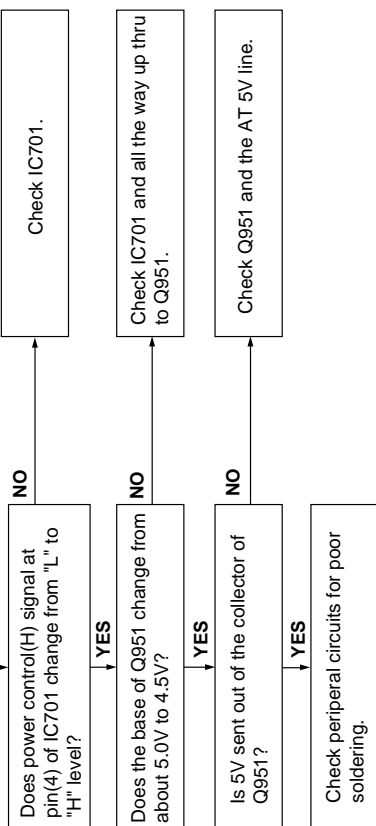
FLOW CHART NO.10

The cassette tape fails to eject.



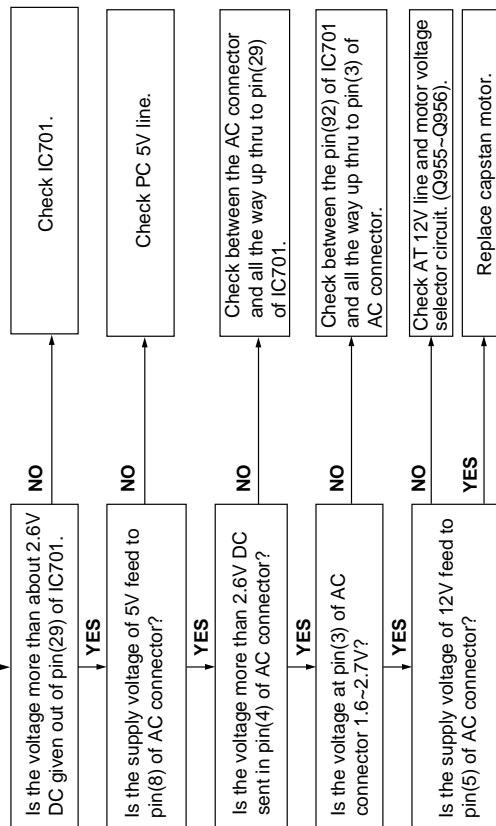
FLOW CHART NO.11

No power is turned on.



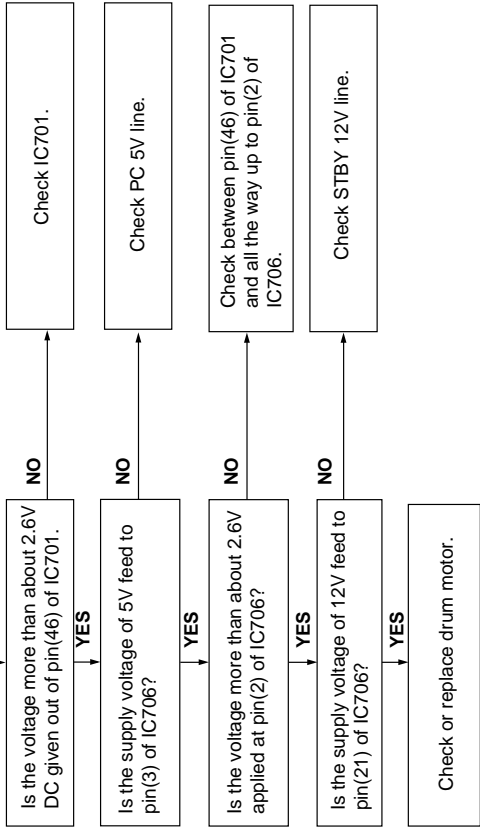
FLOW CHART NO.12

The capstan motor fails to run.



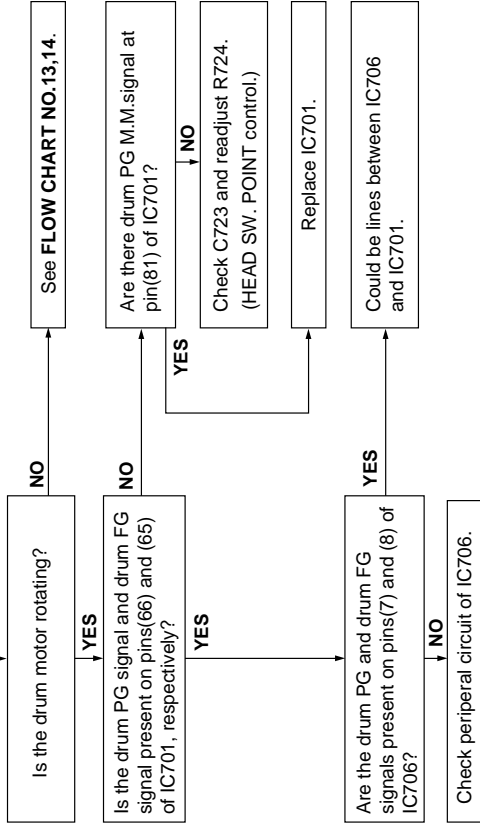
FLOW CHART NO.13

The drum motor fails to run.



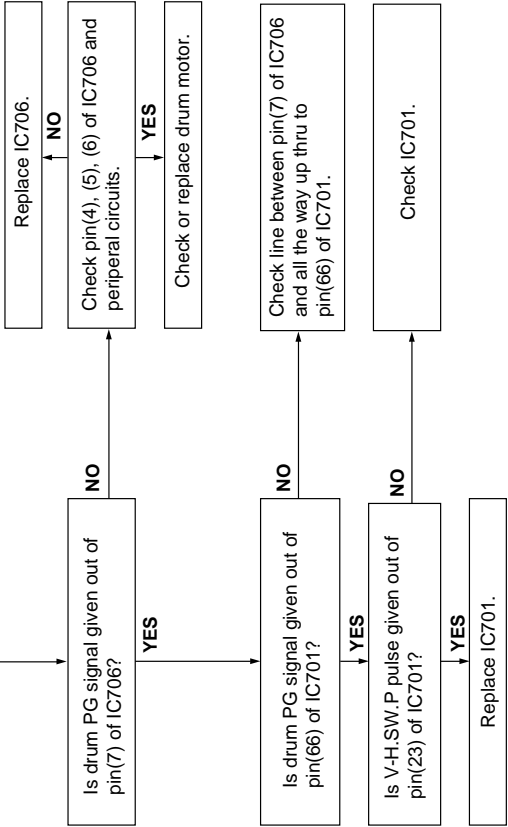
FLOW CHART NO.15

No head switching pulse.

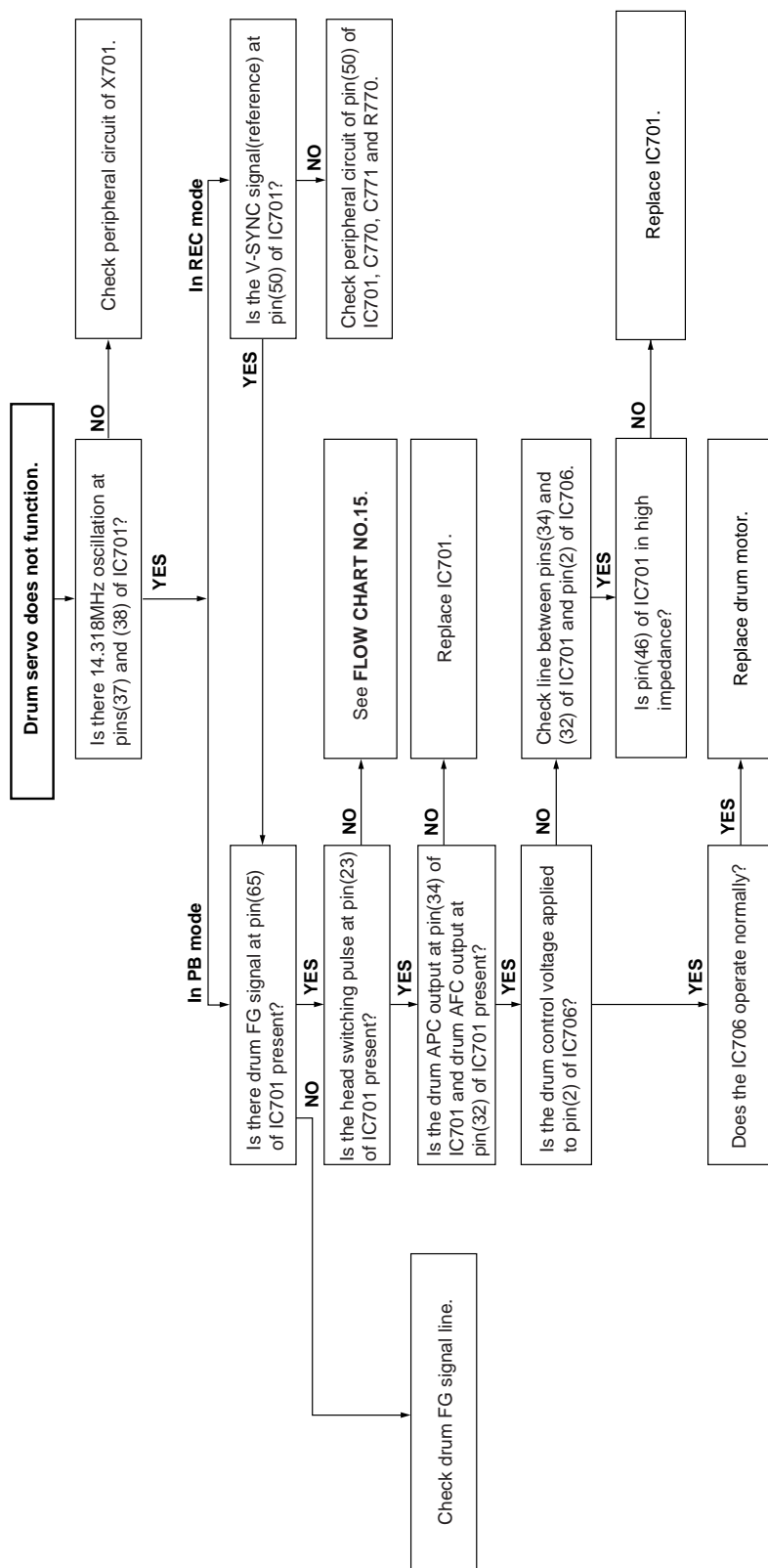


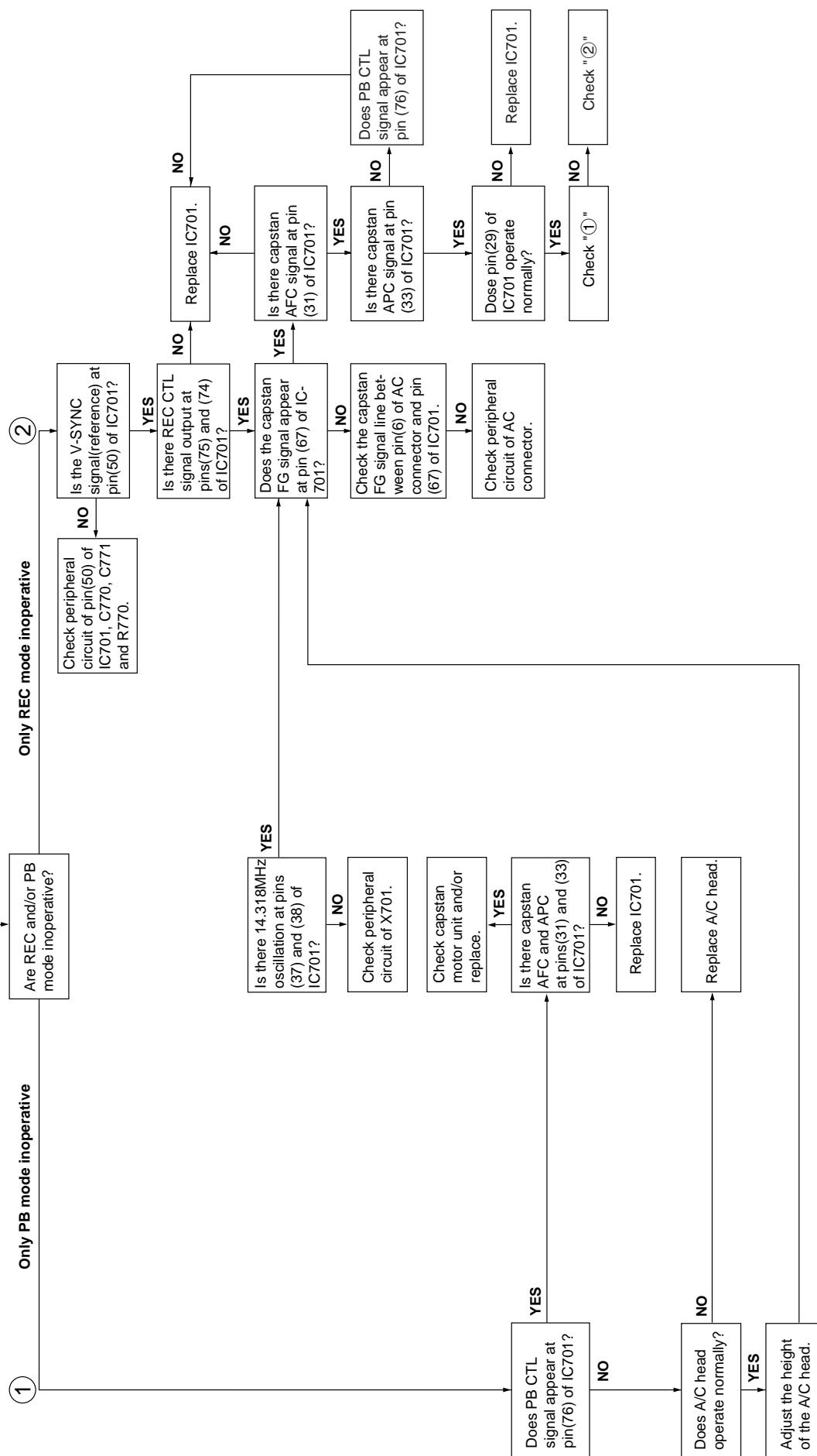
FLOW CHART NO.14

The drum motor runs only for a few seconds.

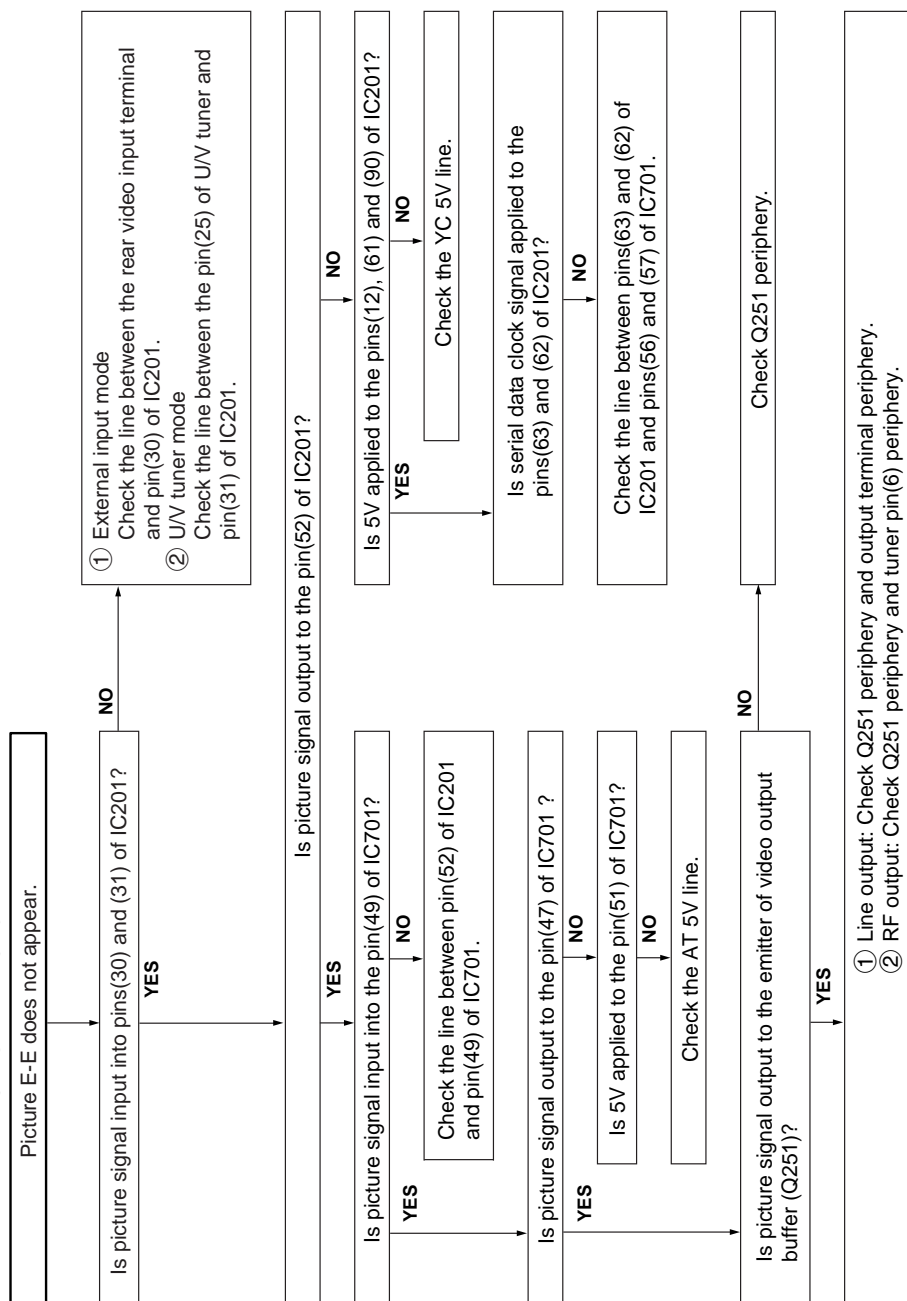


FLOW CHART NO.16

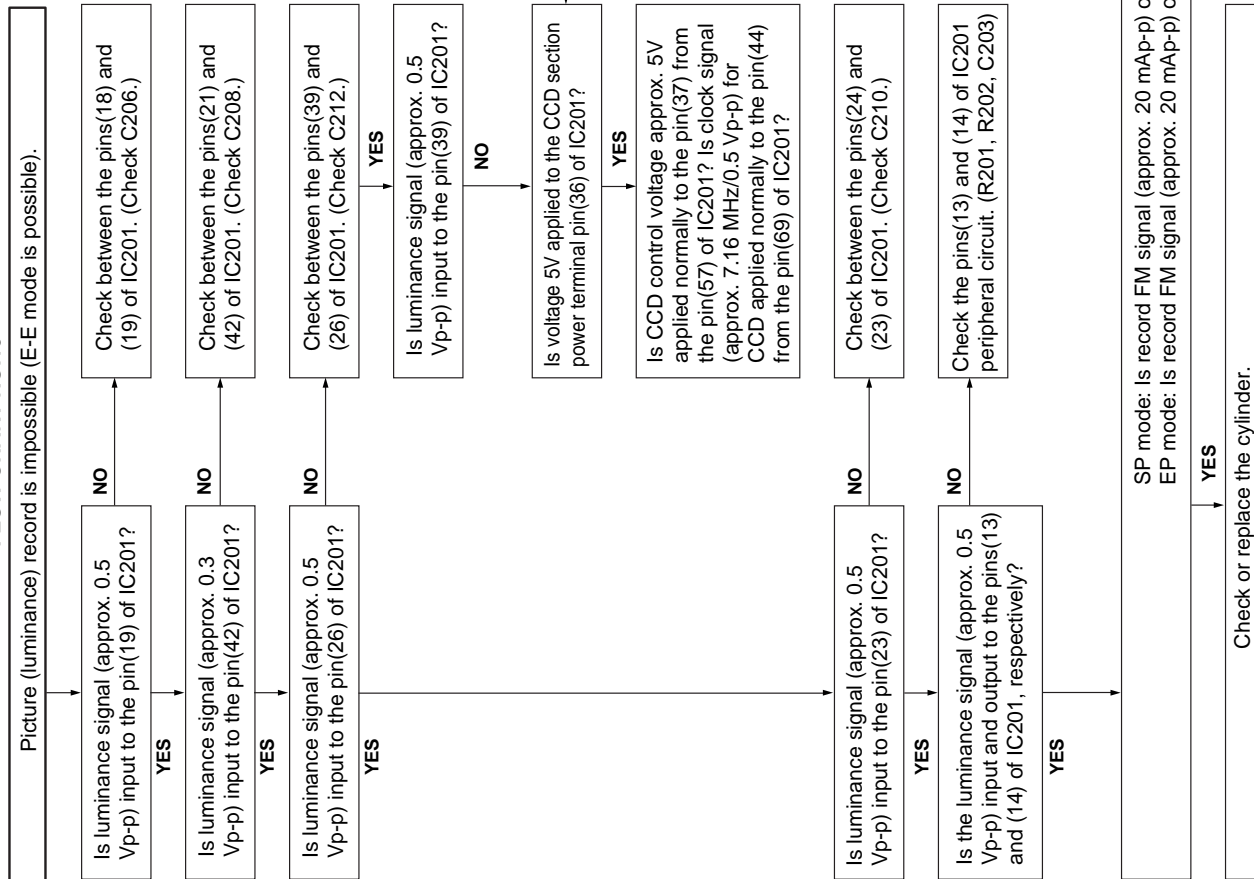




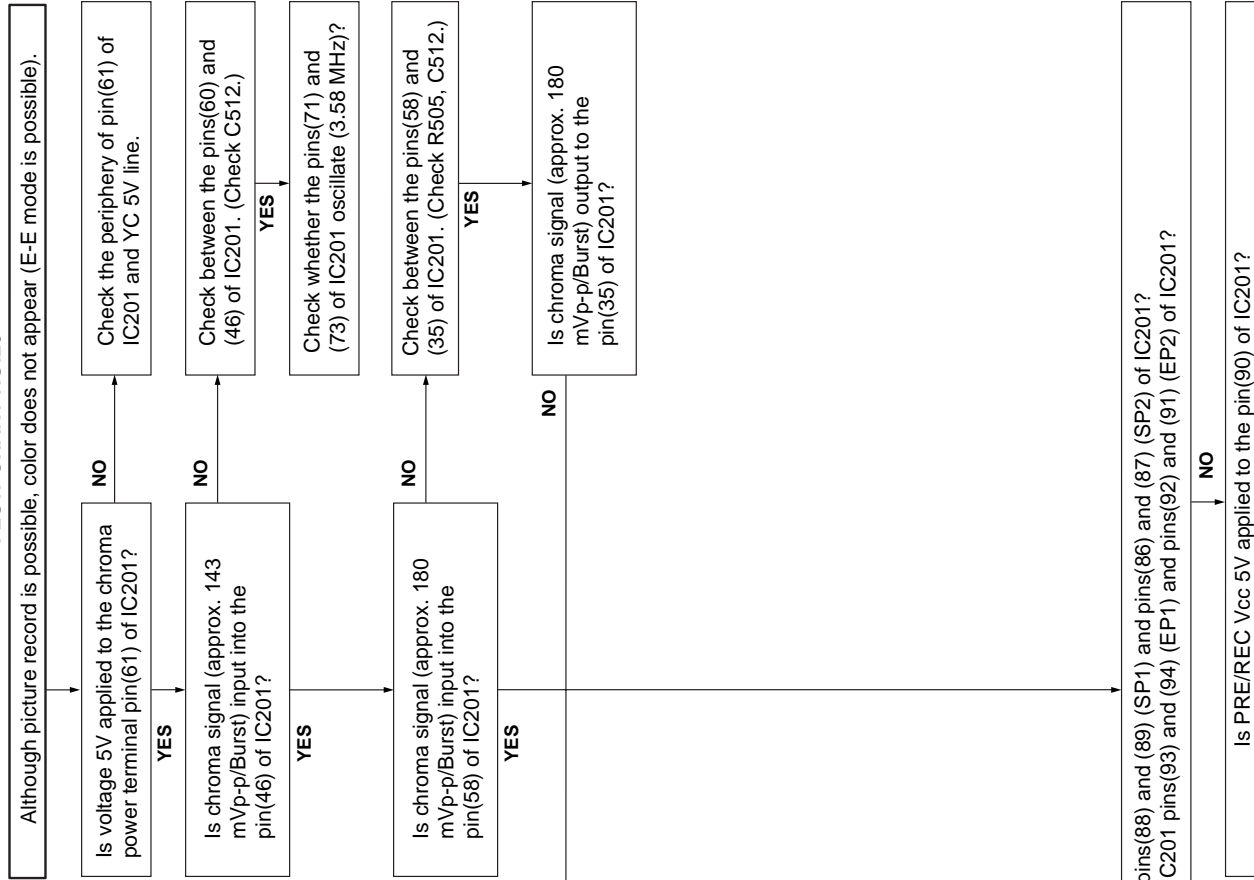
FLOW CHART NO.18



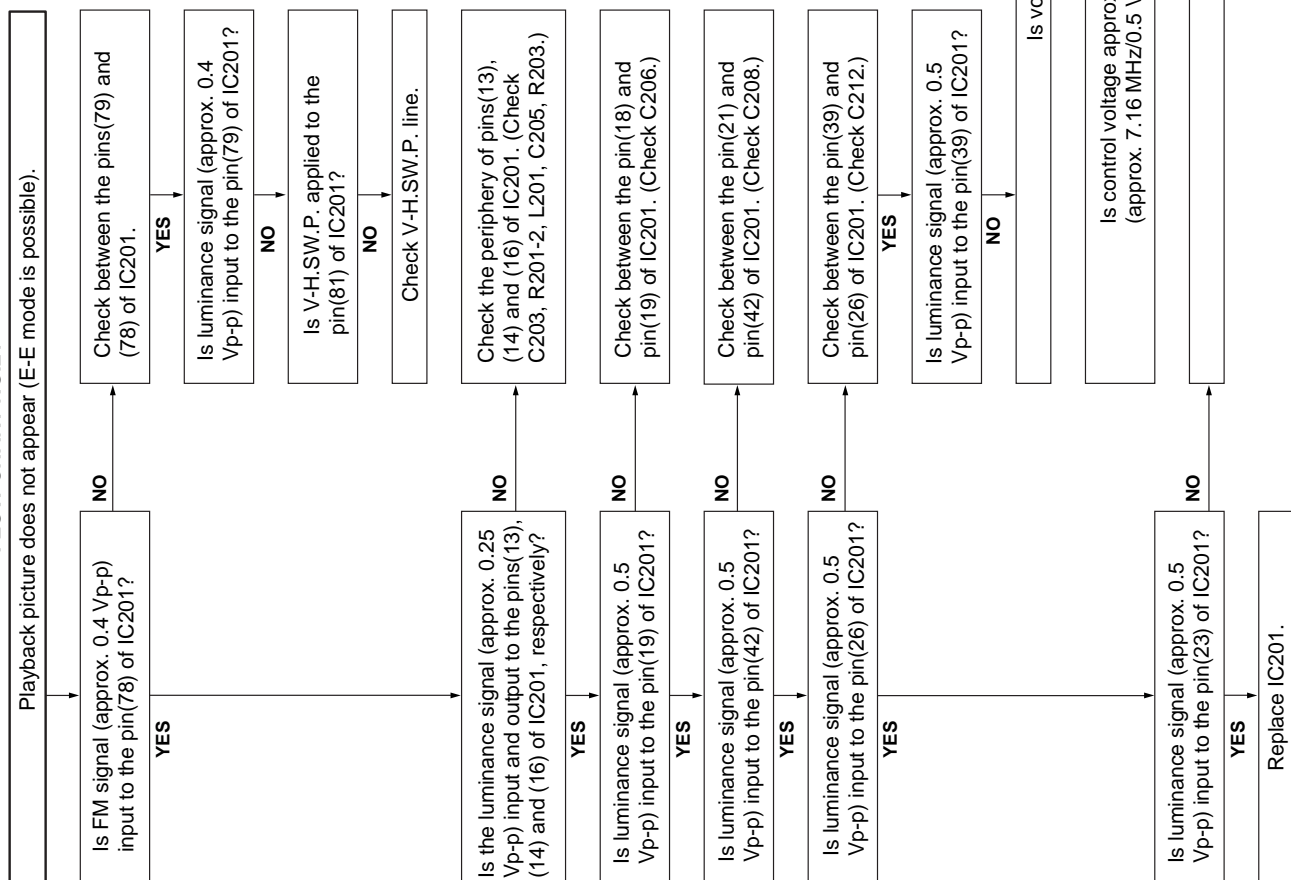
FLOW CHART NO.19



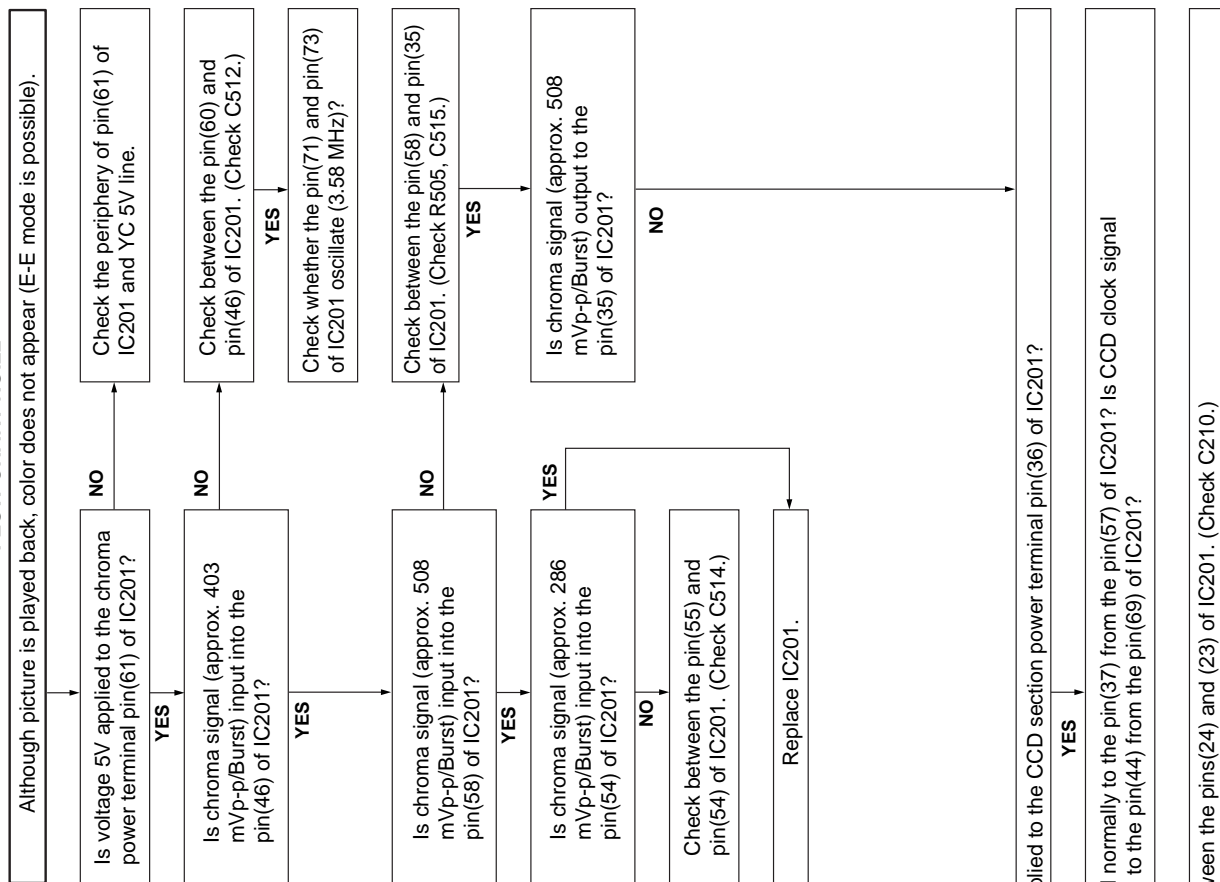
FLOW CHART NO.20



FLOW CHART NO.21

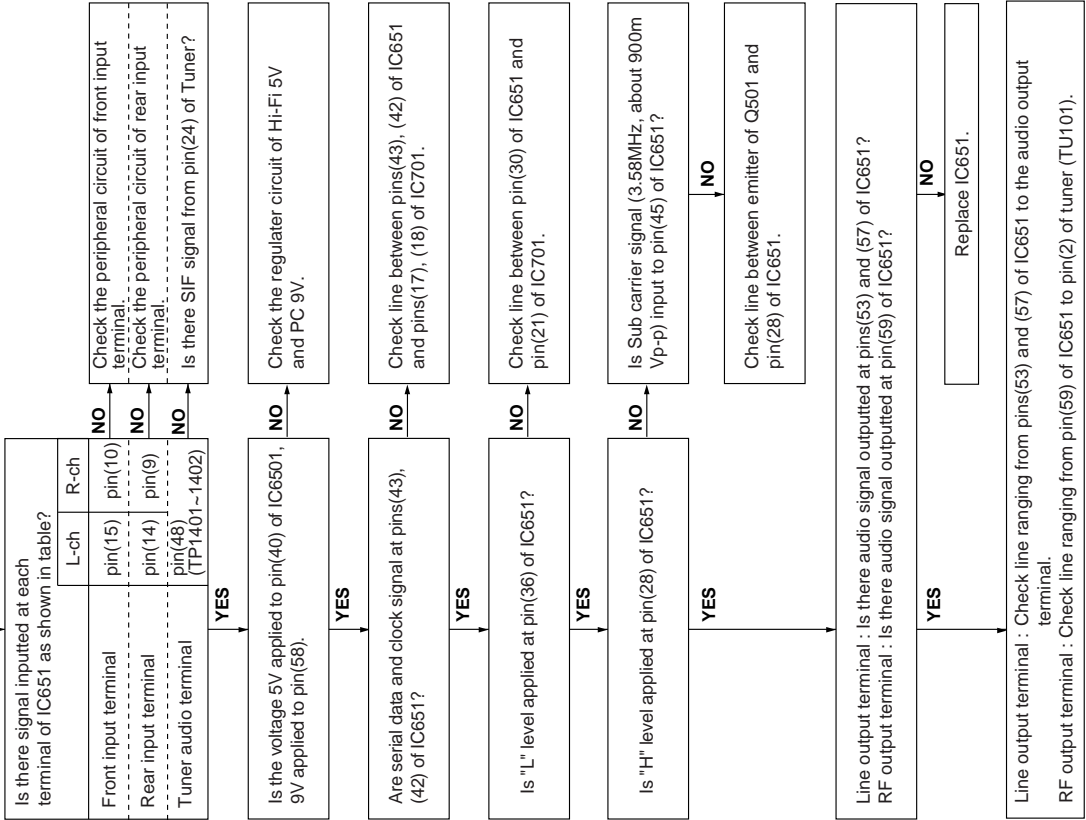


FLOW CHART NO.22

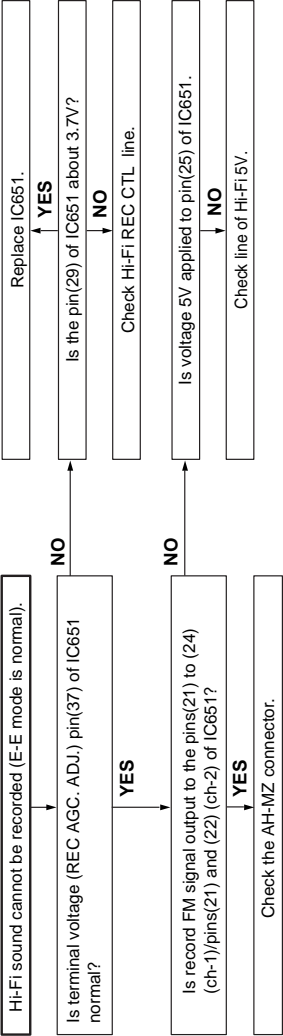


FLOW CHART NO.23

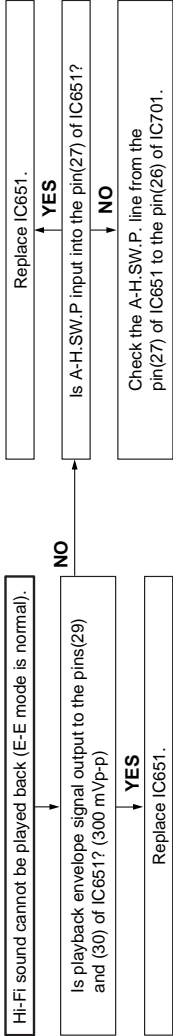
No Hi-Fi E-E sound heard.



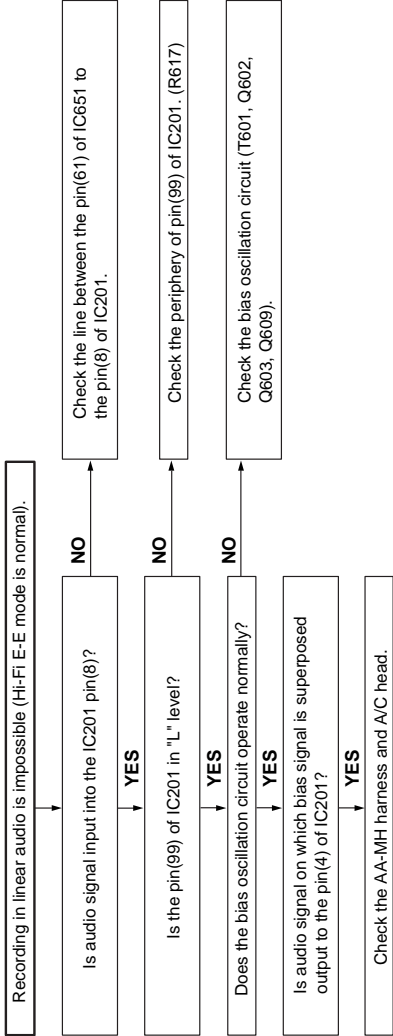
FLOW CHART NO.24



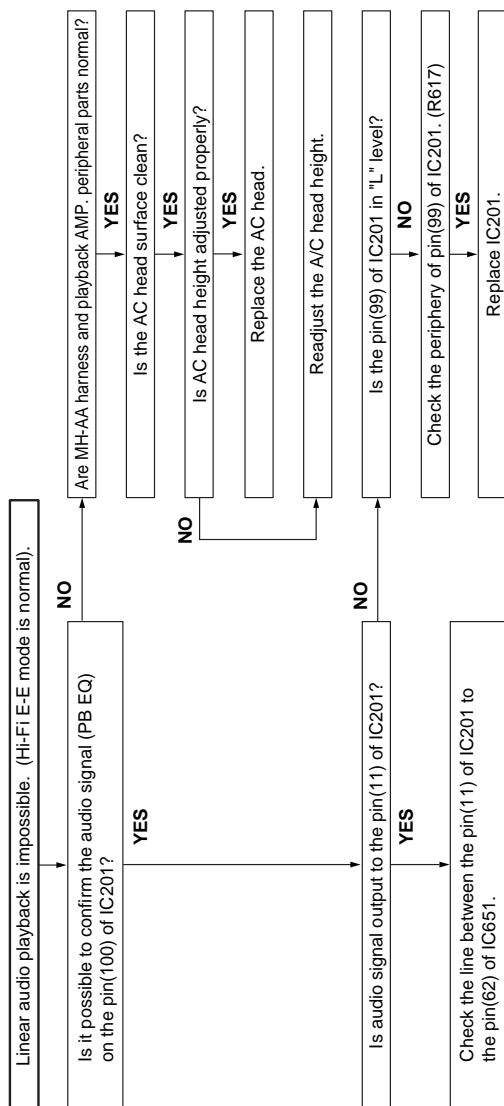
FLOW CHART NO.25



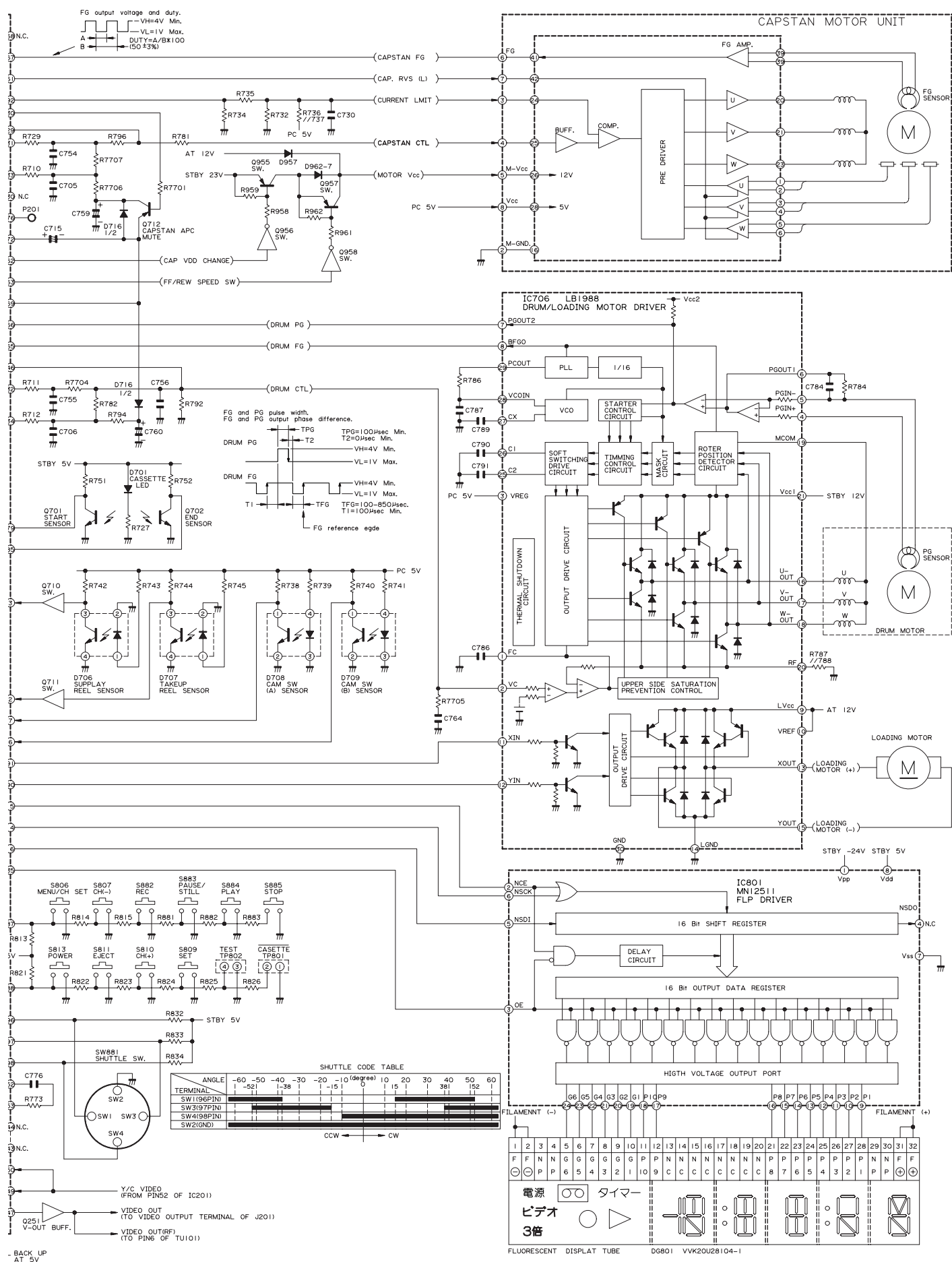
FLOW CHART NO.26

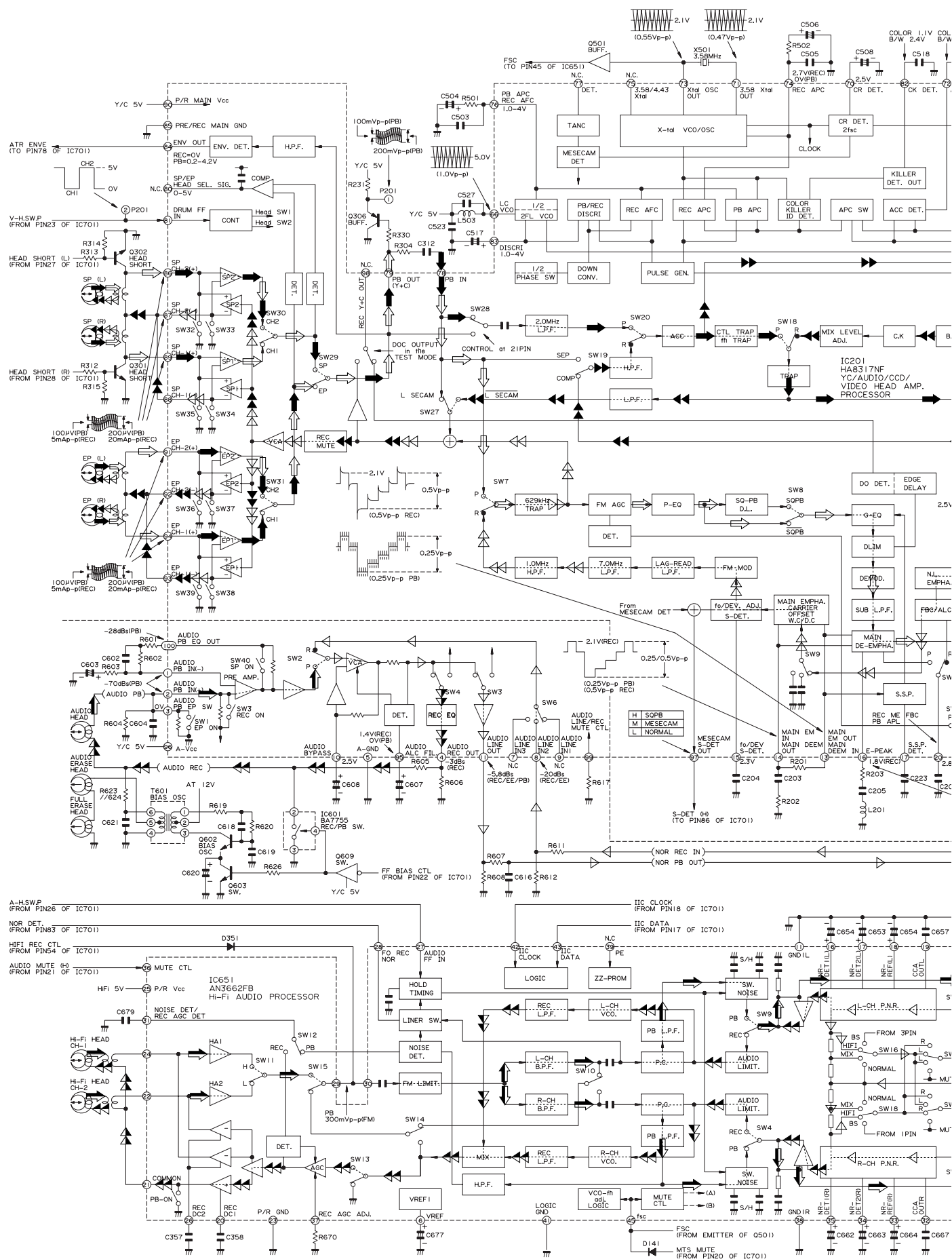


FLOW CHART NO.27



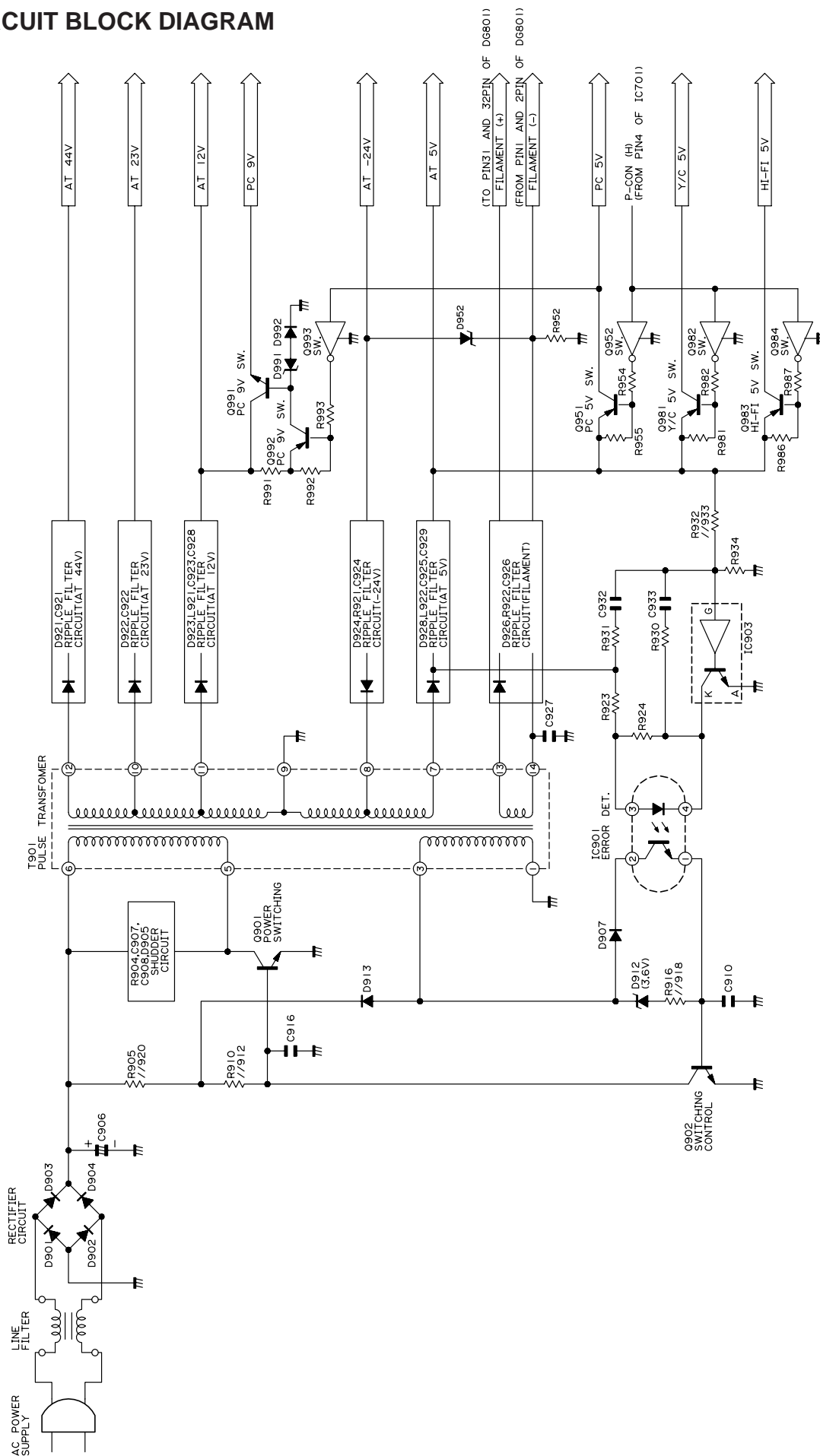










POWER CIRCUIT BLOCK DIAGRAM



SCHEMATIC DIAGRAM

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "  " () ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET.

BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

- The indicated voltages in the following diagram are measured with an SSVM, upon receiving color bars (400 Hz sound signal) in either the record mode or the play mode voltage is indicated as follows.

4.0 Record mode (SP)

(4.0) PB mode (SP)

4.0 LP mode

4.0 EP mode

NOTE:

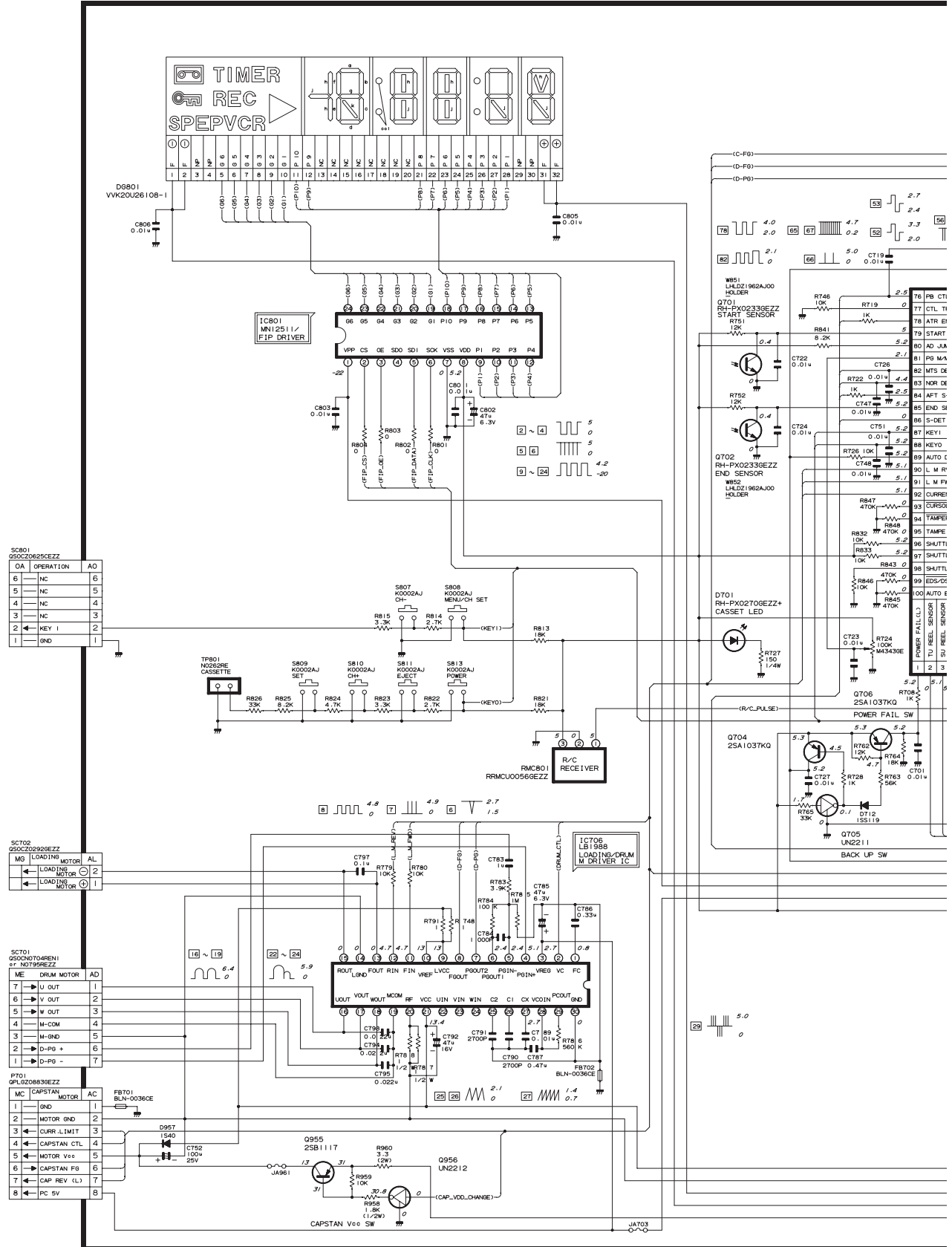
1. The unit of resistance "ohm" is omitted (K: 1000 ohms M: 1 Meg ohm).
2. All resistors are 1/8 watt, unless otherwise noted.
3. All capacitors μF , unless otherwise noted P: $\mu\mu F$.

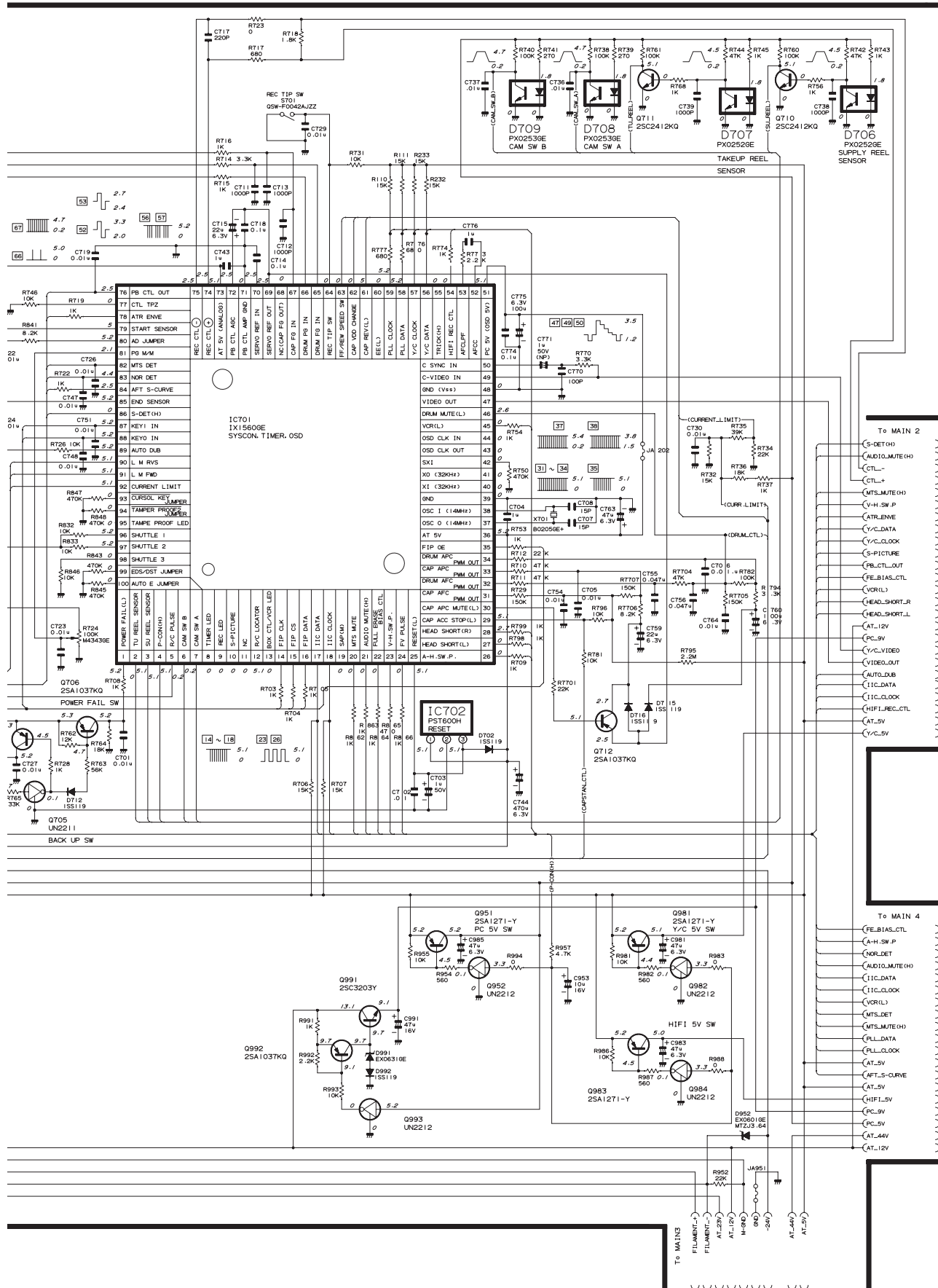
Voltages and waveform are measured as follows:

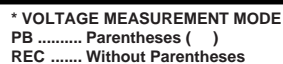
- DC voltages are measured with an SSVM placed between points indicated and chassis ground, with the supply voltage of 120V AC and all controls for normal positions.

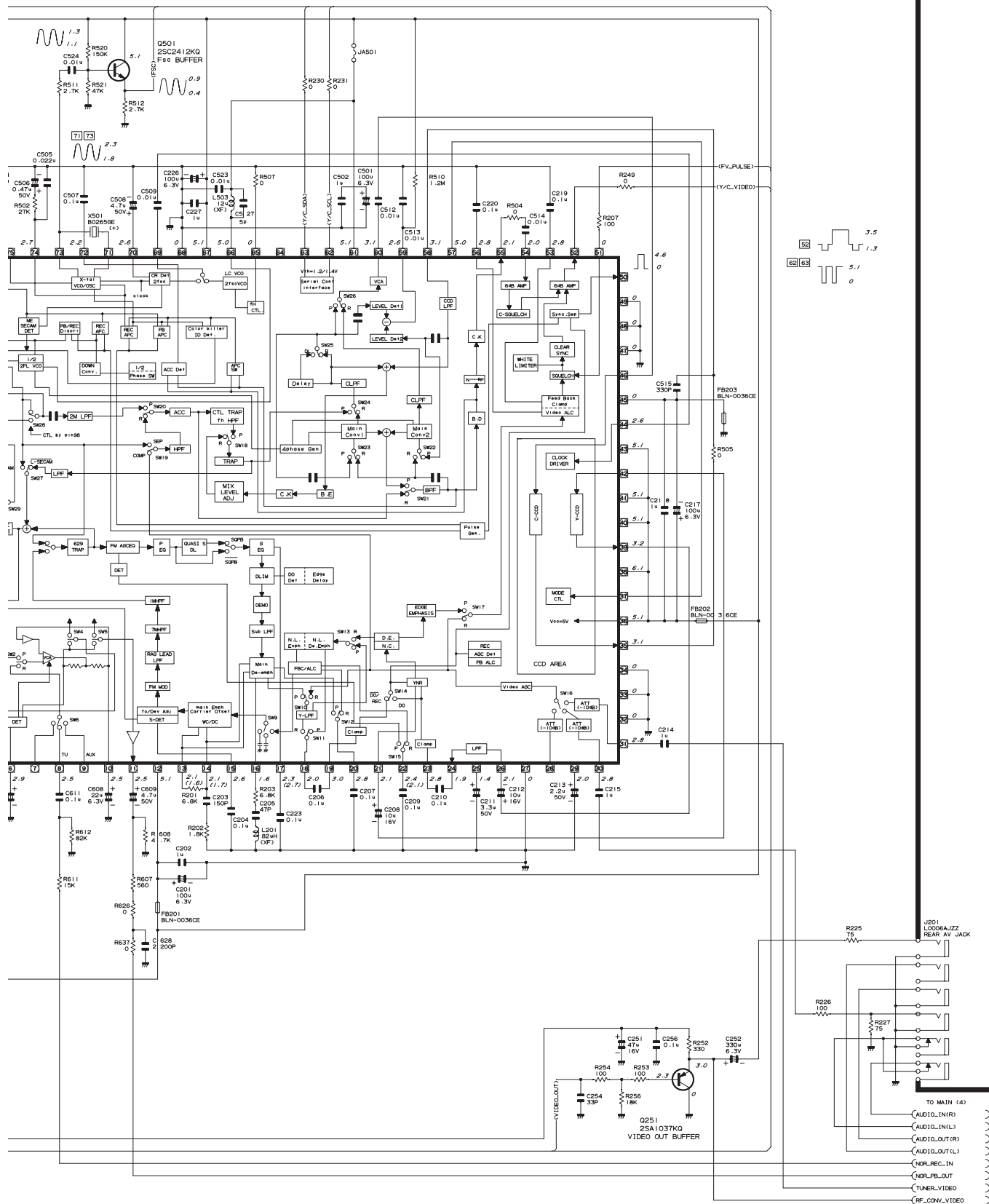
This circuit diagram is a standard one, actual circuits printed may be subject to change for product improvement without prior notice.

9. SCHEMATIC DIAGRAM AND PWB FOIL PATTERN MAIN CIRCUIT(1)

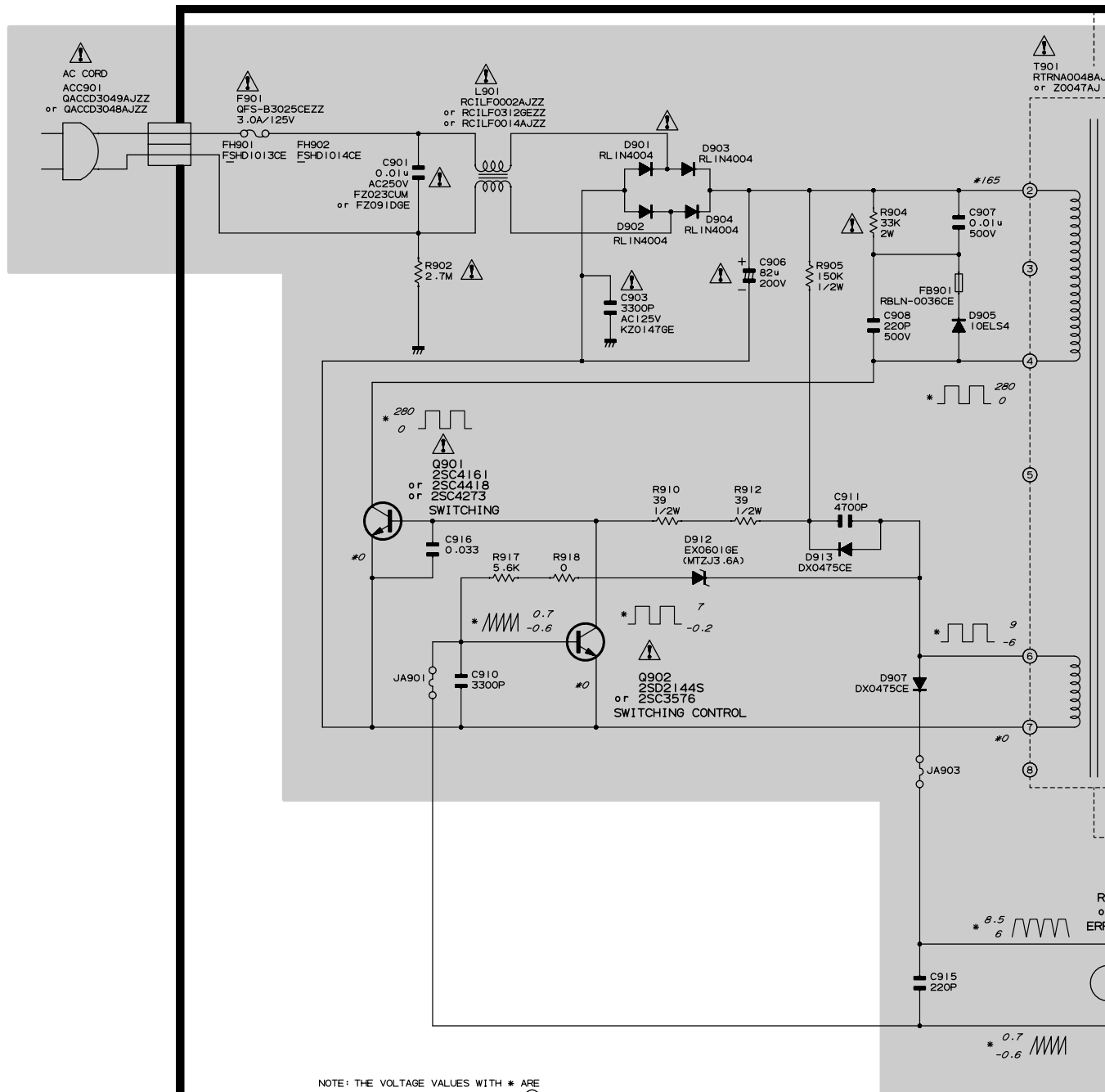






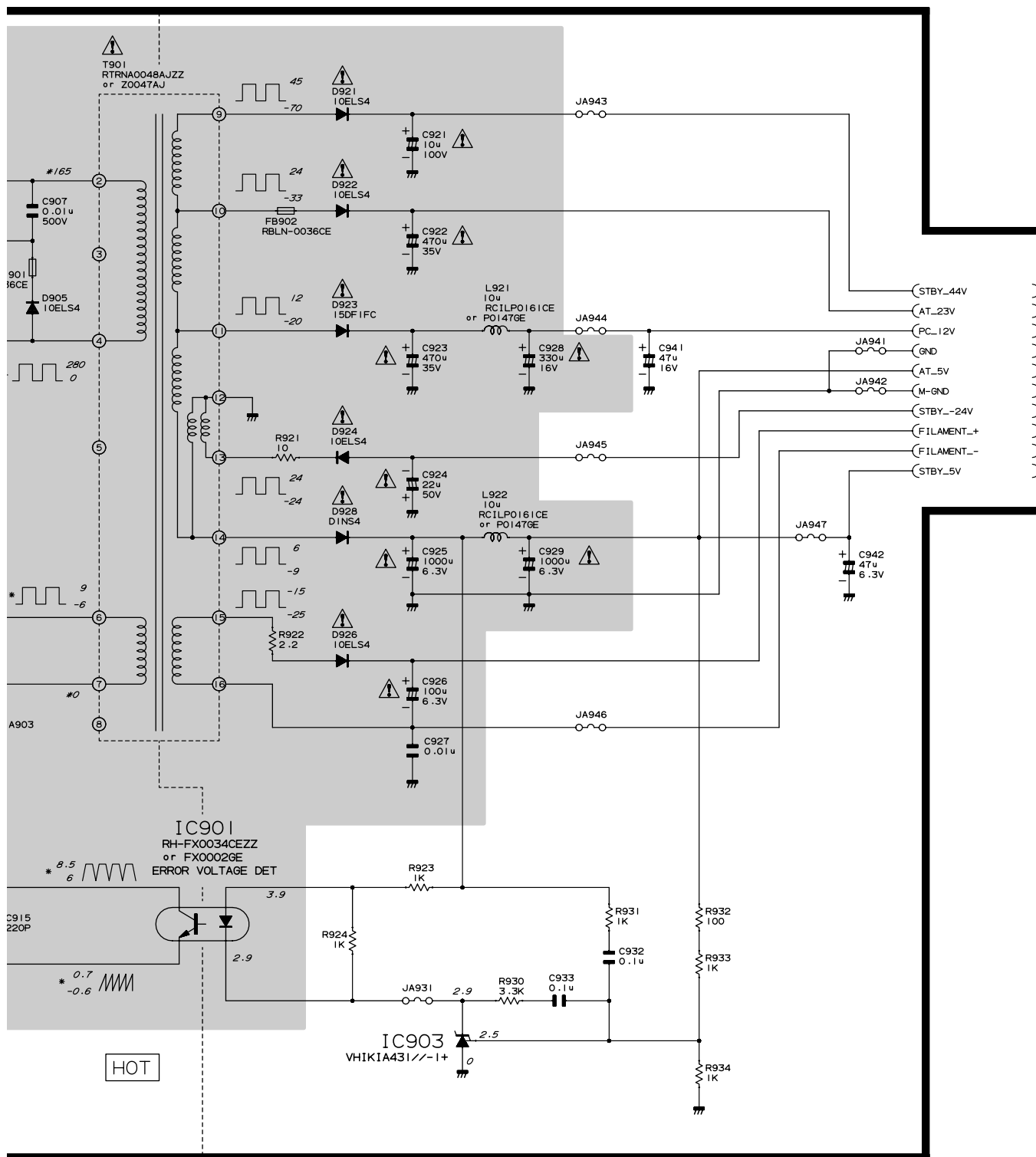


MAIN CIRCUIT(3)

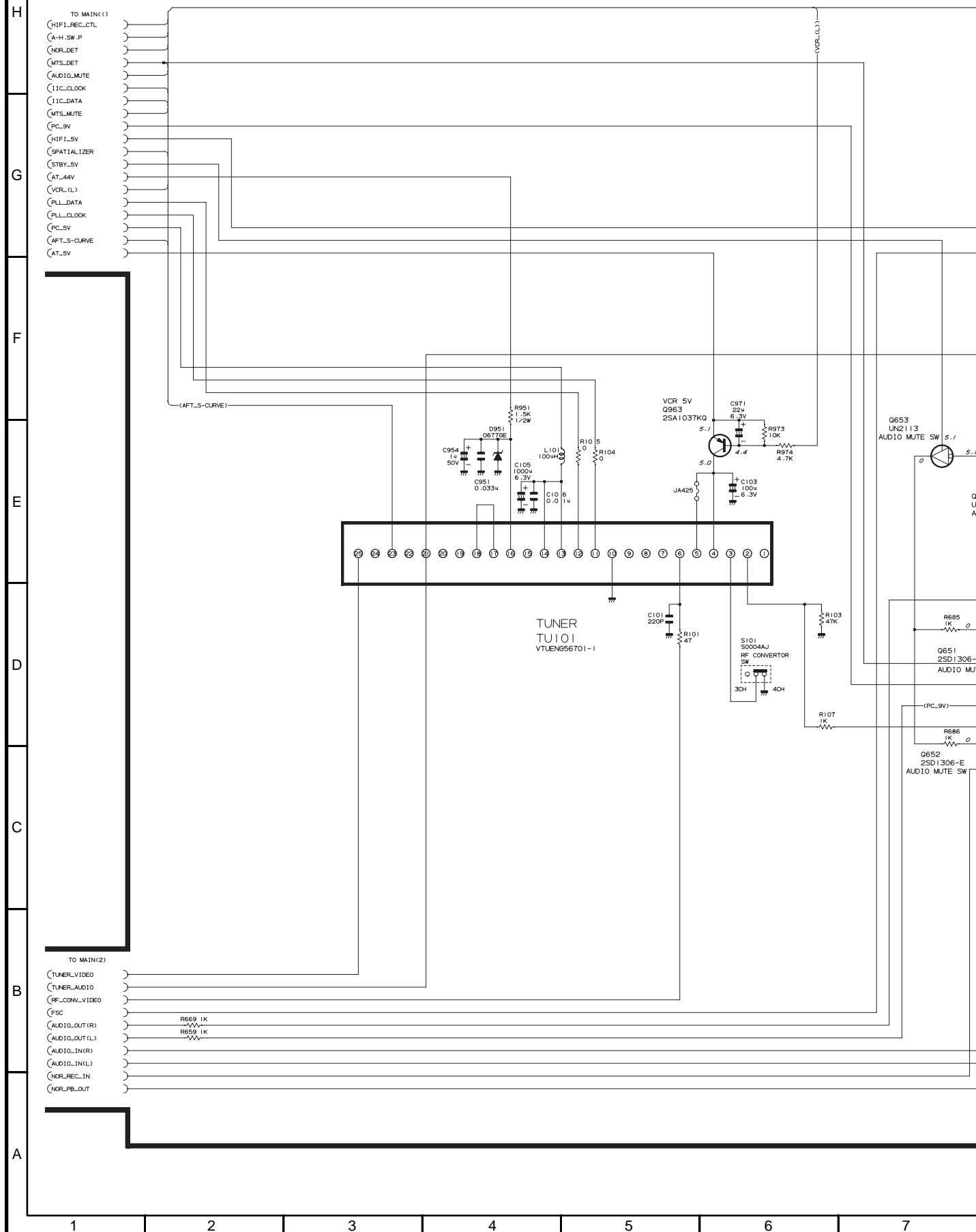


NOTE: THE VOLTAGE VALUES WITH * ARE
MEASURED BETWEEN POINTS AND \ominus POLARITY OF C904

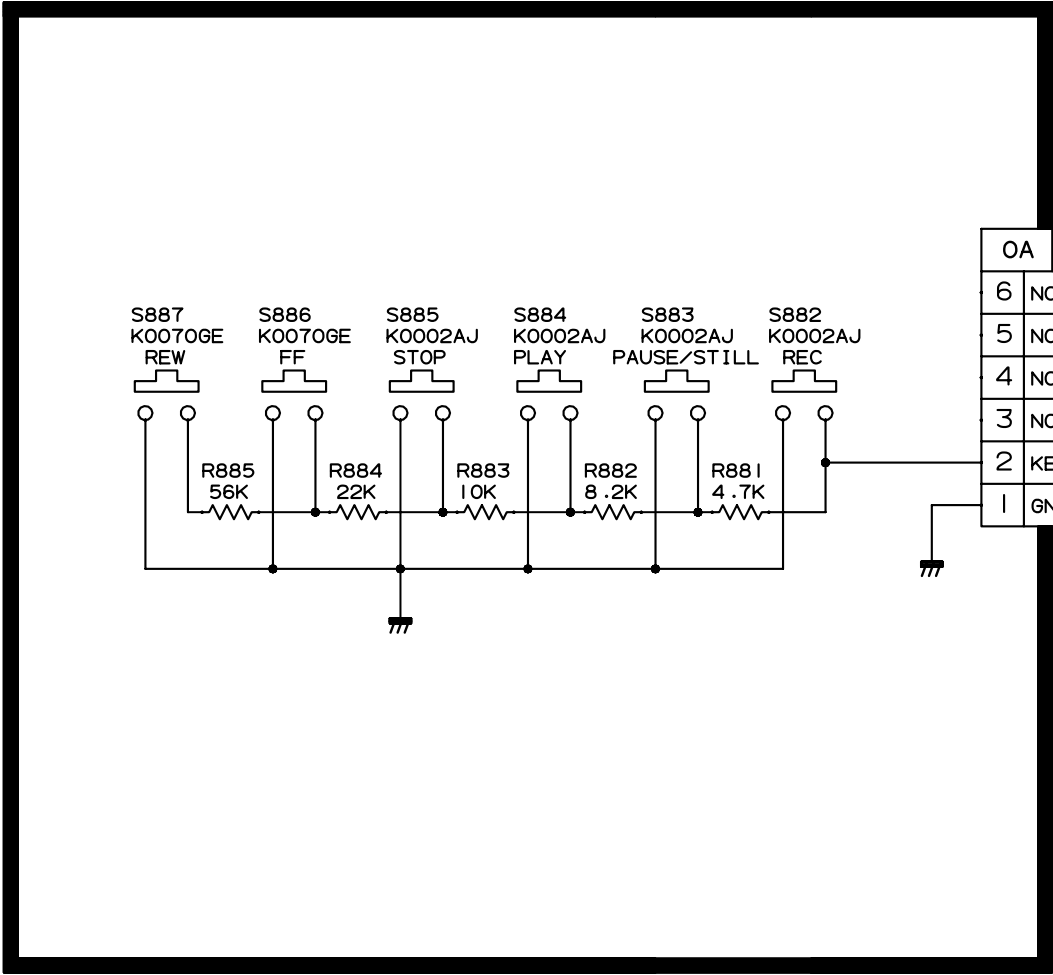
HOT



MAIN CIRCUIT(4)



OPERATION CIRCUIT

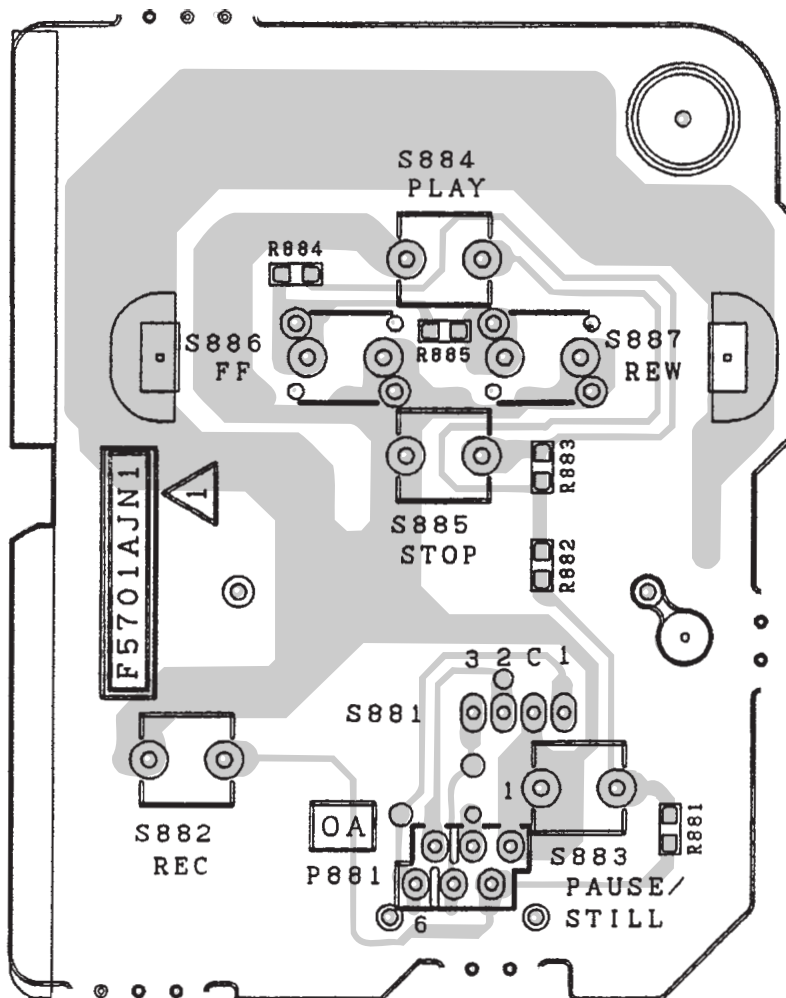


P881
QPLGZ0626CEZZ

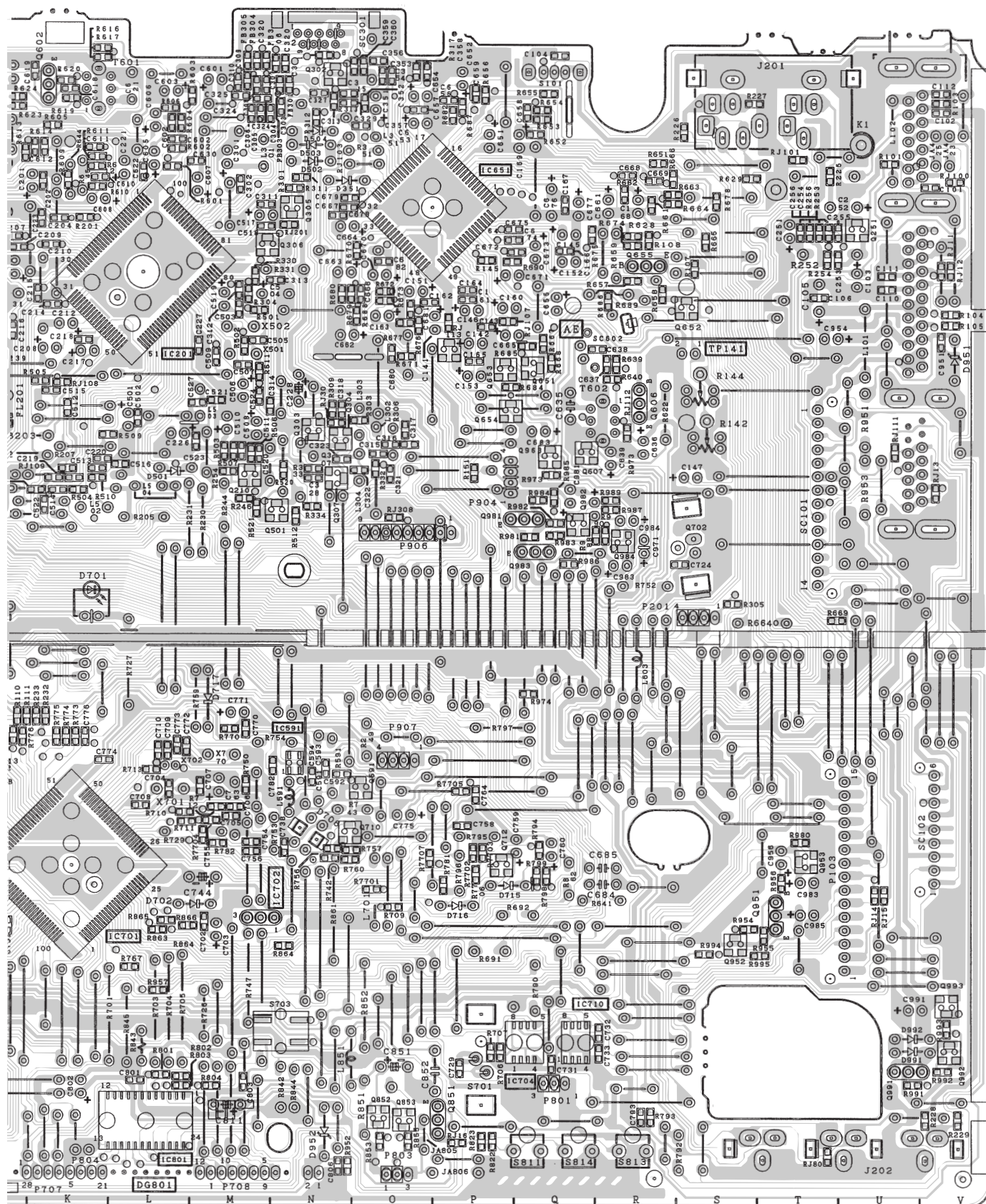
OA	TO MAIN (I)	AO
6	NC	6
5	NC	5
4	NC	4
3	NC	3
2	KEY I	2
1	GND	1

* VOLTAGE MEASUREMENT MODE
PB Parentheses ()
REC Without Parentheses

A







10. PARTS LIST

PARTS REPLACEMENT

Many electrical and mechanical parts in video cassette recorder have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the Replacement Parts Lists and Schematic Diagrams.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- | | |
|------------------------|-----------------------|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |

In **USA**: Contact your nearest SHARP Parts Distributor to order.
For location of SHARP Parts Distributor,
Please Call Toll-free;
1-800-BE-SHARP

HOW TO IDENTIFY CHIP TRANSISTORS AND DIODES BY ITS MARKING

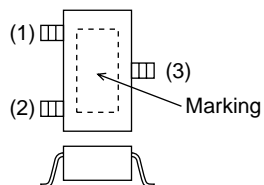


Fig. 1

Package	Marking	Parts No.
Fig. 1	FQ	VS2SA1037KQ-1
Fig. 1	BQ	VS2SC2412KQ-1
Fig. 1	16	VSDTA144EK/-1
Fig. 1	15	VSDTA124EK/-1
Fig. 1	25	VSDTC124EK/-1

MARK★: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code
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PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

DUNTK5700TEV1	- Main Unit	—
DUNTK5701TEV1	- Operation Unit	—
93GHR22772101	- Battery Cover	—

Ref. No.	Part No.	★	Description	Code
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DUNTK5700TEV1 MAIN UNIT

TUNER

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT INDEPENDENTLY.

TU101	VTUENG56701-1	V	VHF TUNER	BL
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INTEGRATED CIRCUITS

IC201	VHiHA8317NF-1	V	HA8317NF	AZ
IC601	VHiBA7755A/-1	V	BA7755A	AE
IC651	VHiAN3662FB-1	V	AN3662FB	AZ
IC701	RH-iX1560GEN4	J	IX1560GE	BB
IC702	VHiPST600H/-1	V	PST600H	AE
IC706	VHiLB1988/-1	V	LB1988	AQ
IC801	VHiMN12511/-1	V	MN12511	AQ
IC903	VHiKiA431/-1	V	KIA431	AE

TRANSISTORS

Q251	VS2SA1037KQ-1	V	2SA1037KQ	AA
Q302	VS2SD1306-E1E	V	2SD1306	AD
Q306	VS2SA1037KQ-1	V	2SA1037KQ	AA
Q501	VS2SC2412KQ-1	V	2SC2412KQ	AA
Q602	VS2C3939SQR-1	V	2C3939SQR	AC
Q603	VS2SC2412KQ-1	V	2SC2412KQ	AA
Q651	VS2SD1306-E1E	V	2SD1306	AD
Q652	VS2SD1306-E1E	V	2SD1306	AD
Q653	VSUN2113///-1	V	UN2113	AA
Q654	VSUN2212///-1	V	UN2212	AA
Q656	VSUN2212///-1	V	UN2212	AA
Q704	VS2SA1037KQ-1	V	2SA1037KQ	AA
Q705	VSUN2211///-1	V	UN2211	AA
Q706	VS2SA1037KQ-1	V	2SA1037KQ	AA
Q710	VS2SC2412KQ-1	V	2SC2412KQ	AA
Q711	VS2SC2412KQ-1	V	2SC2412KQ	AA
Q712	VS2SA1037KQ-1	V	2SA1037KQ	AA
⚠ Q901	VS2SC4161//1E	V	2SC4161	AL
⚠ Q902	VS2SD2144S/-1	V	2SD2144S	AC
Q951	VS2SA1271-Y-1	V	2SA1271	AB
Q952	VSUN2212///-1	V	UN2212	AA
Q955	VS2SB1117KU1E	V	2SB1117	AE
Q956	VSUN2212///-1	V	UN2212	AA
Q963	VS2SA1037KQ-1	V	2SA1037KQ	AA
Q981	VS2SA1271-Y-1	V	2SA1271	AB
Q982	VSUN2212///-1	V	UN2212	AA
Q983	VS2SA1271-Y-1	V	2SA1271	AB
Q984	VSUN2212///-1	V	UN2212	AA
Q991	VS2SC3203Y/-1	V	2SC3203Y	AB
Q992	VS2SA1037KQ-1	V	2SA1037KQ	AA
Q993	VSUN2212///-1	V	UN2212	AA

DISPLAY

DG801	VVK20U26108-1	V	Display	AW
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DIODES AND LED'S

D351	RH-DX0475CEZZ	V	DX0475CE	AB
D701	RH-PX0270GEZZ	J	LED, Cassette	AC
D702	RH-DX0475CEZZ	V	DX0475CE	AB
D706	RH-PX0252GEZZ	J	LED, Supply Reel Sensor	AF
D707	RH-PX0252GEZZ	J	LED, Takeup Reel Sensor	AF
D708	RH-PX0253GEZZ	J	LED, CAM SW A	AF
D709	RH-PX0253GEZZ	J	LED, CAM SW B	AF
D712	RH-DX0475CEZZ	V	DX0475CE	AB
D715	RH-DX0475CEZZ	V	DX0475CE	AB
D716	RH-DX0475CEZZ	V	DX0475CE	AB
⚠ D901	VHDRL1N4004-1	V	RL1N4004	AD
⚠ D902	VHDRL1N4004-1	V	RL1N4004	AD
⚠ D903	VHDRL1N4004-1	V	RL1N4004	AD
⚠ D904	VHDRL1N4004-1	V	RL1N4004	AD
⚠ D905	VHD10ELS4//1	V	10ELS4	AD
⚠ D907	RH-DX0475CEZZ	V	DX0475CE	AB
⚠ D912	RH-EX0601GEZZ	J	Zener Diode	AA
⚠ D913	RH-DX0475CEZZ	V	DX0475CE	AB
⚠ D921	VHD10ELS4//1	V	10ELS4	AD
⚠ D922	VHD10ELS4//1	V	10ELS4	AD

VC-H992U VC-H992U(A)

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
⚠ D923	VHD15DF1FC/1E	V	15DF1FC	AD	C218	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB
⚠ D924	VHD10ELS4/-1	V	10ELS4	AD	C219	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA
⚠ D926	VHD10ELS4/-1	V	10ELS4	AD	C220	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA
⚠ D928	VHDD1NS4///-1	V	D1NS4	AE	C221	VCEA9M1CW106M	V 10	16V Electrolytic	AB
D951	RH-EX0677GEZZ	J	Zener Diode	AB	C223	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA
D952	RH-EX0601GEZZ	J	Zener Diode	AA	C226	VCEA9M0JW107M	V 100	6.3V Electrolytic	AB
D957	VHD1S40///-1	V	1S40	AF	C227	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB
D991	RH-EX0631GEZZ	J	Zener Diode	AA	C251	VCEA9M1CW476M	V 47	16V Electrolytic	AB
D992	RH-DX0475CEZZ	V	DX0475CE	AB	C252	VCEA0A0JW337M	V 330	6.3V Electrolytic	AC
⚠ IC901	RH-FX0034CEZZ	V	PC817	AE	C254	VCCCCY1HH330J	V 33p	50V Ceramic	AA
Q701	RH-PX0233GEZZ	J	LED, Start Sensor	AD	C256	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA
Q702	RH-PX0233GEZZ	J	LED, End Sensor	AD	C301	VCEA9M0JW107M	V 100	6.3V Electrolytic	AB
CRYSTALS					C302	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB
X501	RCRSB0265GEZZ	J	Crystal	AH	C303	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
X701	RCRSB0205GEZZ	J	Crystal	AM	C304	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
COILS					C305	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
L101	VP-CF101K0000	V	Peaking 100μH	AB	C306	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
L201	VP-XF820K0000	V	Peaking 82μH	AB	C307	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
L301	VP-MK101K0000	V	Peaking 100μH	AB	C308	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
L351	VP-MK101K0000	V	Peaking 100μH	AB	C309	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
L503	VP-XF120K0000	V	Peaking 12μH	AB	C310	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
L602	VP-DF221K0000	V	Peaking 220μH	AB	C311	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
⚠ L901	RCiLF0002AJZZ	V	Coil	AK	C312	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
⚠ L921	RCiLP0147GEZZ	J	Coil	AF	C319	VCCCCY1HH100D	V 10p	50V Ceramic	AA
⚠ L922	RCiLP0147GEZZ	J	Coil	AF	C320	VCCCCY1HH100D	V 10p	50V Ceramic	AA
TRANSFORMERS					C327	VCKYCY1HB102K	V 1000p	50V Ceramic	AA
T601	RTRNH0086GEZZ	J	OSC. Transformer	AD	C329	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
⚠ T901	RTRNZ0048AJZZ	V	Transformer	AQ	C351	VCEA9M0JW107M	V 100	6.3V Electrolytic	AB
VARIABLE RESISTORS					C352	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB
R142	RVR-M4340GEZZ	J	Variable, 47k	AB	C353	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
R144	RVR-M4343GEZZ	J	Variable, 100k	AB	C354	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
R724	RVR-M4343GEZZ	J	Variable, 100k	AB	C356	VCCCCY1HH101J	V 100p	50V Ceramic	AA
CAPASITORS					C357	VCKYCY1CB104K	V 0.1	16V Ceramic	AB
C101	VCKYCY1HB221K	V	220p 50V Ceramic	AA	C358	VCKYCY1CB104K	V 0.1	16V Ceramic	AB
C103	VCEA9M0JW107M	V	100 6.3V Electrolytic	AB	C501	VCEA9M0JW107M	V 100	6.3V Electrolytic	AB
C105	VCEA0A0JW108M	V	1000 6.3V Electrolytic	AC	C502	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB
C106	VCKYCY1HF103Z	V	0.01 50V Ceramic	AA	C503	VCKYCY1HB472K	V 4700p	50V Ceramic	AA
C141	VCEA9M1HW105M	V	1 50V Electrolytic	AB	C504	VCEA9A1HW225M	V 2.2	50V Electrolytic	AB
C142	VCEA9M0JW107M	V	100 6.3V Electrolytic	AB	C505	VCKYCY1EB223K	V 0.022	25V Ceramic	AA
C143	VCKYCY0JF105Z	V	1 6.3V Ceramic	AB	C506	VCEA9M1HW474M	V 0.47	50V Electrolytic	AB
C145	VCEA9M1HW335M	V	3.3 50V Electrolytic	AB	C507	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA
C147	VCEA9M1HW475M	V	4.7 50V Electrolytic	AB	C508	VCEA9M1HW475M	V 4.7	50V Electrolytic	AB
C160	VCEA9M1HW225M	V	2.2 50V Electrolytic	AB	C509	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C161	VCKYCY1CB104K	V	0.1 16V Ceramic	AB	C512	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C162	VCKYCY1CB104K	V	0.1 16V Ceramic	AB	C513	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C163	VCEA9M1HW475M	V	4.7 50V Electrolytic	AB	C514	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C164	VCKYCY1CB104K	V	0.1 16V Ceramic	AB	C515	VCKYCY1HB331K	V 330p	50V Ceramic	AA
C165	VCKYCY1CB104K	V	0.1 16V Ceramic	AB	C517	VCEA9M1HW335M	V 3.3	50V Electrolytic	AB
C166	VCKYCY1EB223K	V	0.022 25V Ceramic	AA	C518	VCKYCY1HF333Z	V 0.033	50V Ceramic	AA
C167	VCKYCY1CB104K	V	0.1 16V Ceramic	AB	C523	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C168	VCEA9M1CW106M	V	10 16V Electrolytic	AB	C524	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C169	VCEA9M1HW105M	V	1 50V Electrolytic	AB	C527	VCCCCY1HH5R0C	V 5p	50V Ceramic	AA
C201	VCEA9M0JW107M	V	100 6.3V Electrolytic	AB	C601	VCEA9M0JW107M	V 100	6.3V Electrolytic	AB
C202	VCKYCY0JF105Z	V	1 6.3V Ceramic	AB	C602	VCKYCY1EB103K	V 0.01	25V Ceramic	AA
C203	VCCCCY1HH151J	V	150p 50V Ceramic	AA	C603	VCEA9M1CW106M	V 10	16V Electrolytic	AB
C204	VCKYCY1CF104Z	V	0.1 16V Ceramic	AA	C604	VCKYCY1HB821K	V 820p	50V Ceramic	AA
C205	VCCCCY1HH470J	V	47p 50V Ceramic	AA	C605	VCEA9M1CW106M	V 10	16V Electrolytic	AB
C206	VCKYCY1CF104Z	V	0.1 16V Ceramic	AA	C606	VCEA9M1HW475M	V 4.7	50V Electrolytic	AB
C207	VCKYCY1CF104Z	V	0.1 16V Ceramic	AA	C607	VCEA9M1HW475M	V 4.7	50V Electrolytic	AB
C208	VCEA9M1CW106M	V	10 16V Electrolytic	AB	C608	VCEA9M0JW226M	V 22	6.3V Electrolytic	AB
C209	VCKYCY1CF104Z	V	0.1 16V Ceramic	AA	C609	VCEA9M1HW475M	V 4.7	50V Electrolytic	AB
C210	VCKYCY1CF104Z	V	0.1 16V Ceramic	AA	C611	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA
C211	VCEA9M1HW335M	V	3.3 50V Electrolytic	AB	C617	VCEA9M1CW476M	V 47	16V Electrolytic	AB
C212	VCEA9M1CW106M	V	10 16V Electrolytic	AB	C618	VCKYCY1EB103K	V 0.01	25V Ceramic	AA
C213	VCEA9M1HW225M	V	2.2 50V Electrolytic	AB	C619	VCKYCY1EB103K	V 0.01	25V Ceramic	AA
C214	VCKYCY0JF105Z	V	1 6.3V Ceramic	AB	C620	VCEA9M1CW106M	V 10	16V Electrolytic	AB
C215	VCKYCY0JF105Z	V	1 6.3V Ceramic	AB	C621	VCQPYA2AA562J	V 5600p	100V	AC
C216	VCKYCY0JF105Z	V	1 6.3V Ceramic	AB	C622	VCKYCY1HB222K	V 2200p	50V Ceramic	AA
C217	VCEA9M0JW107M	V	100 6.3V Electrolytic	AB	C628	VCKYCY1HB222K	V 2200p	50V Ceramic	AA
					C630	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB
					C651	VCEA9M1HW475M	V 4.7	50V Electrolytic	AB
					C652	VCEA9M0JW336M	V 33	6.3V Electrolytic	AE
					C653	VCEA9M1CW106M	V 10	16V Electrolytic	AB
					C654	VCEA9M1CW106M	V 10	16V Electrolytic	AB
					C655	VCEA9M1CW106M	V 10	16V Electrolytic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C657	VCKYCY1EB153K	V 0.015	25V Ceramic	AA	C786	VCKYCY1CF334Z	V 0.33	16V Ceramic	AA
C658	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	C787	VCIFYHA1HA474J	V 0.47	50V	AD
C659	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	C789	VCKYCY1EB103K	V 0.01	25V Ceramic	AA
C661	VCEA9M1HW475M	V 4.7	50V Electrolytic	AB	C790	VCKYCY1HB272K	V 2700p	50V Ceramic	AA
C662	VCEA9M0JW336M	V 33	6.3V Electrolytic	AE	C791	VCKYCY1HB272K	V 2700p	50V Ceramic	AA
C663	VCEA9M1CW106M	V 10	16V Electrolytic	AB	C792	VCEA9M1CW476M	V 47	16V Electrolytic	AB
C664	VCEA9M1CW106M	V 10	16V Electrolytic	AB	C794	VCKYCY1EB223K	V 0.022	25V Ceramic	AA
C665	VCEA9M1CW106M	V 10	16V Electrolytic	AB	C795	VCKYCY1EB223K	V 0.022	25V Ceramic	AA
C667	VCKYCY1EB153K	V 0.015	25V Ceramic	AA	C797	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA
C668	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	C798	VCKYCY1EB223K	V 0.022	25V Ceramic	AA
C669	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	C801	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C670	VCEA9M0JW107M	V 100	6.3V Electrolytic	AB	C802	VCEA9M0JW476M	V 47	6.3V Electrolytic	AB
C671	VCEA9M1CW107M	V 100	16V Electrolytic	AB	C803	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C672	VCKYCY1CF224Z	V 0.22	16V Ceramic	AA	C805	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C673	VCEA9M0JW226M	V 22	6.3V Electrolytic	AB	C806	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C674	VCKYCY1CF224Z	V 0.22	16V Ceramic	AA	⚠ C901	RC-FZ023CUMZZ	V 0.01	AC250V	AF
C675	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA	⚠ C903	RC-KZ0147GEZZ	J 3300p	AC125V Ceramic	AC
C677	VCEA9M1CW106M	V 10	16V Electrolytic	AB	⚠ C906	RC-EZ0238CEZZ	V 82	200V Electrolytic	AE
C678	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA	⚠ C907	RC-KZ0029CEZZ	V 0.01	500V Ceramic	AC
C679	VCKYCY1CF224Z	V 0.22	16V Ceramic	AA	⚠ C908	VCKYPA2HB221K	V 220p	500V Ceramic	AA
C680	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB	⚠ C910	VCKYCY1HB332K	V 3300p	50V Ceramic	AA
C681	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA	⚠ C911	VCQYTA1HM472K	V 4700p	50V Mylar	AB
C682	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB	⚠ C915	VCKYCY1HB221K	V 220p	50V Ceramic	AA
C684	VCCCPA1HH560J	V 56p	50V Ceramic	AA	⚠ C916	VCKYCY1HF333Z	V 0.033	50V Ceramic	AA
C685	VCCCPA1HH560J	V 56p	50V Ceramic	AA	⚠ C921	VCEAGA2AW106M	V 10	100V Electrolytic	AC
C701	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA	⚠ C922	VCEA0A1VW477M	V 470	35V Electrolytic	AB
C702	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA	⚠ C923	VCEA0A1VW477M	V 470	35V Electrolytic	AB
C703	VCEA9M1HW105M	V 1	50V Electrolytic	AB	⚠ C924	VCEAGA1HW226M	V 22	50V Electrolytic	AB
C704	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB	⚠ C925	VCEA0A0JW108M	V 1000	6.3V Electrolytic	AC
C705	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA	⚠ C926	VCEAGA0JW107M	V 100	6.3V Electrolytic	AB
C706	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA	⚠ C927	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA
C707	VCCCCY1HH150J	V 15p	50V Ceramic	AA	⚠ C928	VCEAGA1CW337M	V 330	16V Electrolytic	AC
C708	VCCCCY1HH150J	V 15p	50V Ceramic	AA	⚠ C929	VCEA0A0JW108M	V 1000	6.3V Electrolytic	AC
C709	VCCCCY1HH180J	V 18p	50V Ceramic	AA	C932	VCQYTA1HM104J	V 0.1	50V Mylar	AA
C710	VCCCCY1HH180J	V 18p	50V Ceramic	AA	C933	VCQYTA1HM104J	V 0.1	50V Mylar	AA
C711	VCKYCY1HB102K	V 1000p	50V Ceramic	AA	C941	VCEA9A1CW476M	V 47	16V Electrolytic	AB
C712	VCKYCY1HB102K	V 1000p	50V Ceramic	AA	C942	VCEA9M0JW476M	V 47	6.3V Electrolytic	AB
C713	VCKYCY1HB102K	V 1000p	50V Ceramic	AA	C951	VCKYCY1HF333Z	V 0.033	50V Ceramic	AA
C714	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA	C953	VCEA9M1CW106M	V 10	16V Electrolytic	AB
C715	VCEA9M0JW226M	V 22	6.3V Electrolytic	AB	C954	VCEA9M1HW105M	V 1	50V Electrolytic	AB
C717	VCKYCY1HB221K	V 220p	50V Ceramic	AA	C971	VCEA9M0JW226M	V 22	6.3V Electrolytic	AB
C718	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA	C981	VCEA9M0JW476M	V 47	6.3V Electrolytic	AB
C719	VCKYCY1EB103K	V 0.01	25V Ceramic	AA	C983	VCEA9M0JW476M	V 47	6.3V Electrolytic	AB
C722	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA	C985	VCEA9M0JW476M	V 47	6.3V Electrolytic	AB
C723	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA	C991	VCEA9M1CW476M	V 47	16V Electrolytic	AB
C724	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C726	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C727	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C729	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C730	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C736	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C737	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C738	VCKYCY1HB102K	V 1000p	50V Ceramic	AA					
C739	VCKYCY1HB102K	V 1000p	50V Ceramic	AA					
C743	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB					
C744	VCEA2A0JW477M	V 470	6.3V Electrolytic	AB					
C747	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C748	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C751	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C752	VCEA2A1EW107M	V 100	25V Electrolytic	AB					
C754	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C755	VCKYCY1HF473Z	V 0.047	50V Ceramic	AA					
C756	VCKYCY1HF473Z	V 0.047	50V Ceramic	AA					
C759	VCEA9M0JW226M	V 22	6.3V Electrolytic	AB					
C760	VCEA9M0JW107M	V 100	6.3V Electrolytic	AB					
C763	VCEA9M0JW476M	V 47	6.3V Electrolytic	AB					
C764	VCKYCY1HF103Z	V 0.01	50V Ceramic	AA					
C770	VCCCCY1HH101J	V 100p	50V Ceramic	AA					
C771	VCE9EM1HW105M	V 1	50V ELECT.(N.P)	AB					
C774	VCKYCY1CF104Z	V 0.1	16V Ceramic	AA					
C775	VCEA9M0JW107M	V 100	6.3V Electrolytic	AB					
C776	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB					
C783	VCKYCY0JF105Z	V 1	6.3V Ceramic	AB					
C784	VCKYCY1HB102K	V 1000p	50V Ceramic	AA					
C785	VCEA9M0JW476M	V 47	6.3V Electrolytic	AB					
RESISTORS									
	RJ13	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ16	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ61	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ63	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ80	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ100	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ101	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ103	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ104	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ105	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ107	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ108	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ109	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ113	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ200	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ201	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	RJ307	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	R101	VRS-CY1JF470J	V 47	1/16W Metal Oxide	AA				
	R103	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA				
	R104	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	R105	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	R107	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA				
	R110	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA				
	R111	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA				
	R145	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA				
	R201	VRS-CY1JF682J	V 6.8k	1/16W Metal Oxide	AA				
	R202	VRS-CY1JF182J	V 1.8k	1/16W Metal Oxide	AA				
	R203	VRS-CY1JF682J	V 6.8k	1/16W Metal Oxide	AA				

VC-H992U
VC-H992U(A)

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R207	VRS-CY1JF101J	V 100	1/16W Metal Oxide	AA	R686	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R225	VRS-CY1JF750J	V 75	1/16W Metal Oxide	AA	R690	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R226	VRS-CY1JF101J	V 100	1/16W Metal Oxide	AA	R703	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R227	VRS-CY1JF750J	V 75	1/16W Metal Oxide	AA	R704	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R228	VRS-CY1JF750J	V 75	1/16W Metal Oxide	AA	R705	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R229	VRS-CY1JF101J	V 100	1/16W Metal Oxide	AA	R706	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA
R232	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA	R707	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA
R233	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA	R708	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R252	VRD-RA2EE331J	V 330	1/4W Carbon	AA	R709	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R253	VRS-CY1JF101J	V 100	1/16W Metal Oxide	AA	R710	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA
R254	VRS-CY1JF101J	V 100	1/16W Metal Oxide	AA	R711	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA
R256	VRS-CY1JF183J	V 18k	1/16W Metal Oxide	AA	R712	VRS-CY1JF223J	V 22k	1/16W Metal Oxide	AA
R301	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R713	VRS-CY1JF564J	V 560k	1/16W Metal Oxide	AA
R304	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R714	VRS-CY1JF332J	V 3.3k	1/16W Metal Oxide	AA
R305	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R715	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R313	VRS-CY1JF332J	V 3.3k	1/16W Metal Oxide	AA	R716	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R315	VRS-CY1JF152J	V 1.5k	1/16W Metal Oxide	AA	R717	VRS-CY1JF681J	V 680	1/16W Metal Oxide	AA
R330	VRS-CY1JF222J	V 2.2k	1/16W Metal Oxide	AA	R718	VRS-CY1JF182J	V 1.8k	1/16W Metal Oxide	AA
R331	VRD-RA2BE102J	V 1k	1/8W Carbon	AA	R719	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R351	VRD-RA2BE333J	V 33k	1/8W Carbon	AA	R722	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R501	VRS-CY1JF681J	V 680	1/16W Metal Oxide	AA	R723	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R502	VRS-CY1JF273J	V 27k	1/16W Metal Oxide	AA	R726	VRD-RA2BE103J	V 10k	1/8W Carbon	AA
R504	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R727	VRD-RA2EE151J	V 150	1/4W Carbon	AA
R505	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R728	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R507	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R729	VRD-RA2BE154J	V 150k	1/8W Carbon	AA
R510	VRS-CY1JF125J	V 1.2M	1/16W Metal Oxide	AA	R731	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R511	VRS-CY1JF272J	V 2.7k	1/16W Metal Oxide	AA	R732	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA
R512	VRS-CY1JF272J	V 2.7k	1/16W Metal Oxide	AA	R734	VRD-RA2BE223J	V 22k	1/8W Carbon	AA
R520	VRS-CY1JF154J	V 150k	1/16W Metal Oxide	AA	R735	VRS-CY1JF393J	V 39k	1/16W Metal Oxide	AA
R521	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R736	VRS-CY1JF183J	V 18k	1/16W Metal Oxide	AA
R601	VRS-CY1JF822J	V 8.2k	1/16W Metal Oxide	AA	R737	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R602	VRS-CY1JF274J	V 270k	1/16W Metal Oxide	AA	R738	VRD-RA2BE104J	V 100k	1/8W Carbon	AA
R603	VRS-CY1JF221J	V 220	1/16W Metal Oxide	AA	R739	VRD-RA2BE271J	V 270	1/8W Carbon	AA
R604	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R740	VRD-RA2BE104J	V 100k	1/8W Carbon	AA
R605	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA	R741	VRD-RA2BE271J	V 270	1/8W Carbon	AA
R606	VRS-CY1JF273J	V 27k	1/16W Metal Oxide	AA	R742	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA
R607	VRS-CY1JF561J	V 560	1/16W Metal Oxide	AA	R743	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R608	VRS-CY1JF472J	V 4.7k	1/16W Metal Oxide	AA	R744	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA
R611	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA	R745	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R612	VRS-CY1JF823J	V 82k	1/16W Metal Oxide	AA	R746	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R617	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA	R748	VRS-CY1JF1R0J	V 1	1/16W Metal Oxide	AA
R618	VRS-CY1JF563J	V 56k	1/16W Metal Oxide	AA	R750	VRS-CY1JF474J	V 470k	1/16W Metal Oxide	AA
R619	VRS-CY1JF470J	V 47	1/16W Metal Oxide	AA	R751	VRD-RA2BE123J	V 12k	1/8W Carbon	AA
R620	VRS-CY1JF153J	V 15k	1/16W Metal Oxide	AA	R752	VRD-RA2BE123J	V 12k	1/8W Carbon	AA
R621	VRD-RA2EE4R7J	V 4.7	1/4W Carbon	AA	R753	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R623	VRS-CY1JF393J	V 39k	1/16W Metal Oxide	AA	R754	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R624	VRS-CY1JF224J	V 220k	1/16W Metal Oxide	AA	R756	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R626	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R760	VRS-CY1JF104J	V 100k	1/16W Metal Oxide	AA
R627	VRS-CY1JF332J	V 3.3k	1/16W Metal Oxide	AA	R761	VRS-CY1JF104J	V 100k	1/16W Metal Oxide	AA
R637	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R762	VRS-CY1JF123J	V 12k	1/16W Metal Oxide	AA
R653	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R763	VRS-CY1JF563J	V 56k	1/16W Metal Oxide	AA
R654	VRS-CY1JF682J	V 6.8k	1/16W Metal Oxide	AA	R764	VRS-CY1JF183J	V 18k	1/16W Metal Oxide	AA
R655	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R765	VRS-CY1JF333J	V 33k	1/16W Metal Oxide	AA
R656	VRS-CY1JF682J	V 6.8k	1/16W Metal Oxide	AA	R768	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R657	VRS-CY1JF821J	V 820	1/16W Metal Oxide	AA	R770	VRS-CY1JF332J	V 3.3k	1/16W Metal Oxide	AA
R658	VRS-CY1JF223J	V 22k	1/16W Metal Oxide	AA	R773	VRS-CY1JF222J	V 2.2k	1/16W Metal Oxide	AA
R659	VRD-RA2BE102J	V 1k	1/8W Carbon	AA	R774	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R663	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R776	VRS-CY1JF681J	V 680	1/16W Metal Oxide	AA
R664	VRS-CY1JF682J	V 6.8k	1/16W Metal Oxide	AA	R777	VRS-CY1JF681J	V 680	1/16W Metal Oxide	AA
R665	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R779	VRD-RA2BE103J	V 10k	1/8W Carbon	AA
R666	VRS-CY1JF682J	V 6.8k	1/16W Metal Oxide	AA	R780	VRD-RA2BE103J	V 10k	1/8W Carbon	AA
R667	VRS-CY1JF821J	V 820	1/16W Metal Oxide	AA	R781	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R668	VRS-CY1JF223J	V 22k	1/16W Metal Oxide	AA	R782	VRS-CY1JF104J	V 100k	1/16W Metal Oxide	AA
R669	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA	R783	VRS-CY1JF392J	V 3.9k	1/16W Metal Oxide	AA
R670	VRS-CY1JF273J	V 27k	1/16W Metal Oxide	AA	R784	VRS-CY1JF104J	V 100k	1/16W Metal Oxide	AA
R671	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA	R785	VRS-CY1JF105J	V 1M	1/16W Metal Oxide	AA
R672	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R786	VRS-CY1JF564J	V 560k	1/16W Metal Oxide	AA
R673	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R787	VRD-RM2HD1R0J	V 1	1/2W Carbon	AA
R674	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R788	VRD-RM2HD1R0J	V 1	1/2W Carbon	AA
R675	VRS-CY1JF183J	V 18k	1/16W Metal Oxide	AA	R791	VRS-CY1JF1R0J	V 1	1/16W Metal Oxide	AA
R676	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA	R794	VRS-CY1JF332J	V 3.3k	1/16W Metal Oxide	AA
R677	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA	R795	VRD-RA2BE225J	V 2.2M	1/8W Carbon	AA
R680	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R796	VRD-RA2BE103J	V 10k	1/8W Carbon	AA
R682	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA	R798	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R685	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA	R799	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R801	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R802	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R803	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R804	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R813	VRD-RA2BE183J	V 18k	1/8W Carbon	AA
R814	VRS-CY1JF272J	V 2.7k	1/16W Metal Oxide	AA
R815	VRS-CY1JF332J	V 3.3k	1/16W Metal Oxide	AA
R821	VRS-CY1JF183J	V 18k	1/16W Metal Oxide	AA
R822	VRS-CY1JF272J	V 2.7k	1/16W Metal Oxide	AA
R823	VRS-CY1JF332J	V 3.3k	1/16W Metal Oxide	AA
R824	VRS-CY1JF472J	V 4.7k	1/16W Metal Oxide	AA
R825	VRS-CY1JF822J	V 8.2k	1/16W Metal Oxide	AA
R826	VRS-CY1JF333J	V 33k	1/16W Metal Oxide	AA
R832	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R833	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R841	VRD-RA2BE822J	V 8.2k	1/8W Carbon	AA
R843	VRD-RA2BE474J	V 470k	1/8W Carbon	AA
R845	VRD-RA2BE474J	V 470k	1/8W Carbon	AA
R846	VRD-RA2BE103J	V 10k	1/8W Carbon	AA
R847	VRD-RA2BE474J	V 470k	1/8W Carbon	AA
R848	VRD-RA2BE474J	V 470k	1/8W Carbon	AA
R851	VRD-RM2HD100J	V 10	1/2W Carbon	AA
R852	VRS-CY1JF331J	V 330	1/16W Metal Oxide	AA
R862	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R863	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R864	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R865	VRS-CY1JF471J	V 470	1/16W Metal Oxide	AA
R866	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
⚠ R902	VRC-UB2HG275K	V 2.7M	1/2W Solid	AF
⚠ R904	VRS-VV3DB333J	V 33k	2W Metal Oxide	AA
⚠ R905	VRD-RM2HD154J	V 150k	1/2W Carbon	AA
⚠ R910	VRD-RM2HD390J	V 39	1/2W Carbon	AA
⚠ R912	VRD-RM2HD390J	V 39	1/2W Carbon	AA
⚠ R917	VRS-CY1JF562J	V 5.6k	1/16W Metal Oxide	AA
⚠ R918	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
⚠ R921	VRS-CY1JF100J	V 10	1/16W Metal Oxide	AA
⚠ R922	VRS-CY1JF2R2J	V 2.2	1/16W Metal Oxide	AA
R923	VRD-RA2BE102J	V 1k	1/8W Carbon	AA
R924	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R930	VRD-RA2BE332J	V 3.3k	1/8W Carbon	AA
R931	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R932	VRS-CY1JF101J	V 100	1/16W Metal Oxide	AA
R933	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R934	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R951	VRD-RM2HD152J	V 1.5k	1/2W Carbon	AA
R952	VRS-CY1JF223J	V 22k	1/16W Metal Oxide	AA
R954	VRS-CY1JF561J	V 560	1/16W Metal Oxide	AA
R955	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R957	VRS-CY1JF472J	V 4.7k	1/16W Metal Oxide	AA
R958	VRD-RM2HD182J	V 1.8k	1/2W Carbon	AA
R959	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R960	VRN-VV3DB3R3J	V 3.3	2W Metal Film	AB
R973	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R974	VRS-CY1JF472J	V 4.7k	1/16W Metal Oxide	AA
R981	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R982	VRS-CY1JF561J	V 560	1/16W Metal Oxide	AA
R983	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R986	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R987	VRS-CY1JF561J	V 560	1/16W Metal Oxide	AA
R988	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R991	VRS-CY1JF102J	V 1k	1/16W Metal Oxide	AA
R992	VRS-CY1JF222J	V 2.2k	1/16W Metal Oxide	AA
R993	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R994	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
R7701	VRS-CY1JF223J	V 22k	1/16W Metal Oxide	AA
R7704	VRS-CY1JF473J	V 47k	1/16W Metal Oxide	AA
R7705	VRS-CY1JF154J	V 150k	1/16W Metal Oxide	AA
R7706	VRS-CY1JF822J	V 8.2k	1/16W Metal Oxide	AA
R7707	VRS-CY1JF154J	V 150k	1/16W Metal Oxide	AA

SWITCHES

S101	QSW-S0004AJZZ	V Switch, PF Converter	AF
S701	QSW-F0042AJZZ	V Switch, Rec Tip	AG
S807	QSW-K0002AJZZ	V Switch, CH-	AD
S808	QSW-K0002AJZZ	V Switch, Menu/CH Set	AD

Ref. No.	Part No.	★	Description	Code
S809	QSW-K0002AJZZ	V	Switch, Set	AD
S810	QSW-K0002AJZZ	V	Switch, CH+	AD
S811	QSW-K0002AJZZ	V	Switch, Eject	AD
S813	QSW-K0002AJZZ	V	Switch, Power	AD

BALUNS

FB201	RBLN-0036CEZZ	V	Balun, BLN-0036CE	AB
FB202	RBLN-0036CEZZ	V	Balun, BLN-0036CE	AB
FB203	RBLN-0036CEZZ	V	Balun, BLN-0036CE	AB
FB301	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
FB302	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
FB303	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
FB304	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
FB305	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
FB306	VRS-CY1JF000J	V 0	1/16W Metal Oxide	AA
FB701	RBLN-0036CEZZ	V	Balun, BLN-0036CE	AB
FB702	RBLN-0036CEZZ	V	Balun, BLN-0036CE	AB
⚠ FB901	RBLN-0036CEZZ	V	Balun, BLN-0036CE	AB
⚠ FB902	RBLN-0036CEZZ	V	Balun, BLN-0036CE	AB

MISCELLANEOUS PARTS

⚠ ACC901	QACCD3049AJZZ	V	AC Cord	AN
⚠ F901	QFS-B3025CEZZ	V	Fuse, 3.0A 125V	AD
⚠ FH901	QFSDH1013CEZZ	V	Fuse Holder	AC
⚠ FH902	QFSDH1014CEZZ	V	Fuse Holder	AC
J201	QJAKL0006AJZZ	V	Rear AV Jack	AL
P201	QPLGN0447REZZ	V	Plug, 4 pin	AA
P701	QPLGZ0883GEZZ	J	Plug, 8 pin	AD
RMC801	RRMCU0056GEZZ	J	Remote Receiver	AQ
SC301	QSOCN0911REN1	V	Socket, 9 pin	AD
SC601	QSOCN0695REZZ	V	Socket, 6 pin	AB
SC602	QSOCZ0293GEZZ	J	Socket, 2 pin	AC
SC701	QSOCN0795REZZ	V	Socket, 7 pin	AC
SC702	QSOCZ0292GEZZ	J	Socket, 2 pin	AC
SC801	QSOCZ0625CEZZ	V	Socket, 6 pin	AC
TP141	QPLGN0262REZZ	V	Plug, 2 pin	AB
TP801	QPLGN0262REZZ	V	Plug, 2 pin	AB
W851	LHLDZ1962AJ00	V	Holder	AD
W852	LHLDZ1962AJ00	V	Holder	AD
	QCNW-0307AJZZ	V	Connecting Cord	AD
	PSPAZ0390AJZZ	V	Spacer	AC
	PSLDM4540AJFW	V	H/A Shield Bottom	AE

DUNTK5701TEV1 OPERATION UNIT**RESISTORS**

R881	VRS-CY1JF472J	V 4.7k	1/16W Metal Oxide	AA
R882	VRS-CY1JF822J	V 8.2k	1/16W Metal Oxide	AA
R883	VRS-CY1JF103J	V 10k	1/16W Metal Oxide	AA
R884	VRS-CY1JF223J	V 22k	1/16W Metal Oxide	AA
R885	VRS-CY1JF563J	V 56k	1/16W Metal Oxide	AA

SWITCHES

S882	QSW-K0002AJZZ	V	Switch, REC	AD
S883	QSW-K0002AJZZ	V	Switch, Pause/Still	AD
S884	QSW-K0002AJZZ	V	Switch, Play	AD
S885	QSW-K0002AJZZ	V	Switch, Stop	AD
S886	QSW-K0070GEZZ	J	Switch, FF	AB
S887	QSW-K0070GEZZ	J	Switch, Rew	AB

MISCELLANEOUS PART

P881	QPLGZ0626CEZZ	V	Plug, 6 pin	AF
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MECHANISM CHASSIS

1	LBNDK1011AJZZ	V	Tension Band Ass'y (VC-H992U)	AH
1	LBNDK1011GEZZ	J	Tension Band Ass'y (VC-H992U(A))	AH

VC-H992U
VC-H992U(A)

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
2	LBOSZ1007AJZZ	V	Tension Arm boss (VC-H992U)	AD	26	CLEVP0287AJZZ	V	Automatic Head Cleaner Ass'y	AG
2	LBOSZ1007GEZZ	J	Tension Arm boss (VC-H992U(A))	AD	27	MSLiP0010AJZZ	V	Sifter(VC-H992U)	AH
4	LBOSZ1006AJZZ	V	Cassette Stay L (VC-H992U)	AD	27	MSLiP0010GEZZ	J	Sifter(VC-H992U(A))	AH
4	LBOSZ1006GEZZ	J	Cassette Stay L (VC-H992U(A))	AD	29	MSPRD0175AJFJ	V	Reverse Guide Spring 2 (VC-H992U)	AE
5	LCHSM0174AJZZ	V	Main Chassis Ass'y (VC-H992U)	AV	29	MSPRD0175GEFJ	J	Reverse Guide Spring 2 (VC-H992U(A))	AE
5	LCHSM0174GEZZ	J	Main Chassis Ass'y (VC-H992U(A))	AV	30	MSPRT0402AJFJ	V	Loading Double Action Spring(VC-H992U)	AE
6	LHLDZ2016AJZZ	V	Loading Motor Block (VC-H992U)	AG	30	MSPRT0402GEFJ	J	Loading Double Action Spring(VC-H992U(A))	AE
6	LHLDZ2016GEZZ	J	Loading Motor Block (VC-H992U(A))	AG	31	MSPRT0403AJFJ	V	Pinch Double Action Spring(VC-H992U)	AD
7	LPOLM0064GEZZ	J	Supply Pole Base Ass'y	AM	31	MSPRT0403GEFJ	J	Pinch Double Action Spring(VC-H992U(A))	AD
8	LPOLM0070GEZZ	J	Take-Up Pole Base Ass'y (VC-H992U)	AK	32	MSPRC0213AJFJ	V	Earth Spring(VC-H992U)	AC
8	LPOLM0069GEZZ	J	Take-Up Pole Base Ass'y (VC-H992U(A))	AK	32	MSPRC0213GEFJ	J	Earth Spring(VC-H992U(A))	AC
9	MLEVF0518AJZZ	V	Take-Up Loading Arm Ass'y(VC-H992U)	AF	33	MSPRT0416AJFJ	V	Tension Spring(VC-H992U)	AD
9	MLEVF0518GEZZ	J	Take-Up Loading Arm Ass'y(VC-H992U(A))	AF	33	MSPRT0416GEFJ	J	Tension Spring (VC-H992U(A))	AD
10	MLEVF0519AJZZ	V	Supply Loading Arm Ass'y(VC-H992U)	AF	34	NBLTK0067AJ00	V	Reel Belt	AE
10	MLEVF0519GEZZ	J	Supply Loading Arm Ass'y (VC-H992U(A))	AF	35	NDAiV1078AJ00	V	Reel Disk(VC-H992U)	AE
11	MLEVF0499AJZZ	V	Pinch Drive Lever Ass'y (VC-H992U)	AG	35	NDAiV1078GE00	J	Reel Disk(VC-H992U(A))	AE
11	MLEVF0499GEZZ	J	Pinch Drive Lever Ass'y (VC-H992U(A))	AG	36	NGERH1293AJZZ	V	Loading Connect Gear (VC-H992U)	AD
12	MLEVF0500GEZZ	J	Pinch Roller Lever Ass'y	AW	36	NGERH1293GEZZ	J	Loading Connect Gear (VC-H992U(A))	AD
15	MLEVF0523AJZZ	V	Tension Arm Ass'y (VC-H992U)	AH	37	NGERH1295AJ00	V	Master Cam(VC-H992U)	AE
15	MLEVF0523GEZZ	J	Tension Arm Ass'y (VC-H992U(A))	AH	37	NGERH1295GE00	J	Master Cam(VC-H992U(A))	AE
16	LANGF9620AJFW	V	A/C Head Plate (VC-H992U)	AG	38	NGERH1294AJZZ	V	Casecon Drive Gear (VC-H992U)	AD
16	LANGF9620GEFW	J	A/C Head Plate (VC-H992U(A))	AG	38	NGERH1294GEZZ	J	Casecon Drive Gear (VC-H992U(A))	AD
17	MLEVP0271AJZZ	V	Sifter Drive Lever (VC-H992U)	AE	39	NGERH1270AJZZ	V	Take-Up Loading Gear (VC-H992U)	AF
17	MLEVP0271GEZZ	J	Sifter Drive Lever (VC-H992U(A))	AE	39	NGERH1270GEZZ	J	Take-Up Loading Gear (VC-H992U(A))	AF
18	MLEVP0272AJZZ	V	Pinch Double Action Lever (VC-H992U)	AD	40	NGERH1271AJZZ	V	Supply Loading Gear (VC-H992U)	AD
18	MLEVP0272GEZZ	J	Pinch Double Action Lever (VC-H992U(A))	AD	40	NGERH1271GEZZ	J	Supply Loading Gear (VC-H992U(A))	AD
19	MLEVP0301AJZZ	V	Reverse Guide Lever Ass'y (VC-H992U)	AL	41	NGERH1272AJZZ	V	Pinch Drive Cam (VC-H992U)	AE
19	MLEVP0301GEZZ	J	Reverse Guide Lever Ass'y (VC-H992U(A))	AL	41	NGERH1272GEZZ	J	Pinch Drive Cam (VC-H992U(A))	AE
20	MLEVP0275AJZZ	V	Reverse Drive Lever (VC-H992U)	AD	43	NGERH1299AJZZ	V	Reel Relay Gear (VC-H992U)	AE
20	MLEVP0275GEZZ	J	Reverse Drive Lever (VC-H992U(A))	AB	43	NGERH1299GEZZ	J	Reel Relay Gear (VC-H992U(A))	AE
21	MLEVP0292AJZZ	V	Slow Brake Lever (VC-H992U)	AE	44	NGERW1070AJZZ	V	Worm Gear(VC-H992U)	AD
21	MLEVP0292GEZZ	J	Slow Brake Lever (VC-H992U(A))	AE	44	NGERW1070GEZZ	J	Worm Gear(VC-H992U(A))	AD
22	MLEVP0290AJZZ	V	Open Lever(VC-H992U)	AD	45	NGERW1066AJZZ	V	Worm Wheel Gear (VC-H992U)	AD
22	MLEVP0290GEZZ	J	Open Lever(VC-H992U(A))	AD	45	NGERW1066GEZZ	J	Worm Wheel Gear (VC-H992U(A))	AD
23	MLEVP0293AJZZ	V	Clutch Lever(VC-H992U)	AE	46	NiDR-0018AJZZ	V	Idler Wheel Ass'y (VC-H992U)	AK
23	MLEVP0293GEZZ	J	Clutch Lever(VC-H992U(A))	AE	46	NiDR-0018GEZZ	J	Idler Wheel Ass'y (VC-H992U(A))	AK
24	MLEVP0324AJZZ	V	Sup Main Brake Ass'y (VC-H992U)	AF	47	NPLYV0162AJZZ	V	Motor Pulley(VC-H992U)	AD
24	MLEVP0324GEZZ	J	Sup Main Brake Ass'y (VC-H992U(A))	AF	47	NPLYV0162GEZZ	J	Motor Pulley(VC-H992U(A))	AD
25	MLEVP0325AJZZ	V	Take-Up Main Brake Ass'y (VC-H992U)	AF	48	NPLYV0163AJZZ	V	Limiter Pulley Ass'y (VC-H992U)	AM
25	MLEVP0325GEZZ	J	Take-Up Main Brake Ass'y (VC-H992U(A))	AF	48	NPLYV0163GEZZ	J	Limiter Pulley Ass'y (VC-H992U(A))	AM
					49	NROLP0131GEZZ	J	Guide Roller	AL
					50	NSFTP0032AJZZ	V	Tension Pole Adjuster (VC-H992U)	AB
					50	NSFTP0032GEZZ	J	Tension Pole Adjuster (VC-H992U(A))	AB
					51	MSPRC0217AJFJ	V	Guide Roller Spring (VC-H992U)	AC
					51	MSPRC0217GEFJ	J	Guide Roller Spring (VC-H992U(A))	AC

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
52	PREFL1011AJZZ	V	Light Guide(VC-H992U)	AE	301	LANGF9592GEFW	J	Upper Plate(VC-H992U(A))	AL
52	PREFL1011GEZZ	J	Light Guide(VC-H992U(A))	AE	302	LHLDX1028AJ00	V	Frame (L)(VC-H992U)	AH
53	QCNW-8022AJZZ	V	FFC for Drum Motor	AF	302	LHLDX1028GE00	J	Frame (L)(VC-H992U(A))	AH
55	QCNW-8021AJZZ	V	FFC for A/C Head	AF	303	LHLDX1030AJZZ	V	Frame (R)(VC-H992U)	AE
56	QPWBF5243AJZZ	V	A/C Head PWB (VC-H992U)	AE	303	LHLDX1030GEZZ	J	Frame (R)(VC-H992U(A))	AE
56	QPWBF5243GEZZ	J	A/C Head PWB (VC-H992U(A))	AE	304	LHLDX1031AJZZ	V	Holder (L)(VC-H992U)	AE
57	QSOCN0605REN1	V	Socket, 6 pin	AB	304	LHLDX1031GEZZ	J	Holder (L)(VC-H992U(A))	AE
58	RHEDT0036AJZZ	V	Full Erase Head	AM	305	LHLDX1032AJ00	V	Holder (R)(VC-H992U)	AH
59	RHEDU0088GEZZ	J	A/C Head Ass'y	AV	305	LHLDX1032GE00	J	Holder (R)(VC-H992U(A))	AH
60	RMOTM1078GEZZ	J	Loading Motor	AP	306	MLEVF0469AJFW	V	Proof Lever (R) (VC-H992U)	AE
61	RMOTN2055GEZZ	J	Capstan D.D. Motor	BA	306	MLEVF0469GEFW	J	Proof Lever (R) (VC-H992U(A))	AE
62	RMOTP1139GEZZ	J	Drum Drive Motor	AT	307	MLEVP0281AJ00	V	Door Open Lever (VC-H992U)	AD
63	DDRMW0030TEX1	V	Upper and lower drum Ass'y	BU	307	MLEVP0281GE00	J	Door Open Lever (VC-H992U(A))	AD
65	QBRSK0041GEZZ	J	Drum Earth Brush	AD	308	MSLiF0076AJFW	V	Slider(VC-H992U)	AK
66	XBPSD26P05J00	V	Drum Drive Motor Mounting Screw (SW2.6P+5S)	AA	308	MSLiF0076GEFW	J	Slider(VC-H992U(A))	AH
67	PGiDC0056GEFW	J	Drum Base	AL	309	MSPRD0151AJFJ	V	Proof Lever (R) Spring (VC-H992U)	AB
68	QPWBF5468AJZZ	V	PWB(LDG Motor) (VC-H992U)	AE	309	MSPRD0151GEFJ	J	Proof Lever (R) Spring (VC-H992U(A))	AB
68	QPWBF5468GEZZ	J	PWB(LDG Motor) (VC-H992U(A))	AE	310	MSPRD0166AJFJ	V	Drive Gear (R) Spring (VC-H992U)	AE
69	QPLGZ0292GEZZ	J	Socket(LDG Motor)	AE	310	MSPRD0166GEFJ	J	Drive Gear (R) Spring (VC-H992U(A))	AE
70	MSPRC0223AJFJ	V	Azimuth Spring (VC-H992U)	AC	311	MSPRP0175AJFJ	V	Cassette Spring (VC-H992U)	AE
70	MSPRC0223GEFJ	J	Azimuth Spring (VC-H992U(A))	AC	311	MSPRP0159GEFJ	J	Cassette Spring (VC-H992U(A))	AD
71	MSPRC0224AJFJ	V	Height Adjusting spring (VC-H992U)	AC	312	MSPRT0381AJFJ	V	Double Action Spring (VC-H992U)	AC
71	MSPRC0224GEFJ	J	Height Adjusting spring (VC-H992U(A))	AB	312	MSPRT0381GEFJ	J	Double Action Spring (VC-H992U(A))	AB
SCREW, NUTS AND WASHERS					313	NGERH1278AJZZ	V	Drive Gear L(VC-H992U)	AE
201	XBPSD26P08000	V	Screw 2.6P+8S A/C Head	AA	313	NGERH1278GEZZ	J	Drive Gear L (VC-H992U(A))	AE
202	LX-HZ3082GEZZ	J	A/C Head Screw	AD	314	NGERH1309AJZZ	V	Drive Gear R(VC-H992U)	AE
203	XHPSD26P06000	V	Screw, C2.6P+6S (For Capstan Motor)	AA	314	NGERH1309GEZZ	J	Drive Gear R (VC-H992U(A))	AE
207	XHPSD30P08WS0	V	Screw, C3.0P+8S (For Drum Base)	AA	315	NGERR1008AJ00	V	Double Action Rack Gear (VC-H992U)	AE
208	XRESJ30-06000	V	E-Ring, E-3	AA	315	NGERR1008GE00	J	Double Action Rack Gear (VC-H992U(A))	AE
209	XWHJZ31-03052	V	Washer, W3.1-5.2-0.5	AC	316	NGERR3005AJFW	V	Drive Angle Gear (VC-H992U)	AG
210	XWHJZ31-04052	V	Washer, W3.1-5.2-0.3	AC	316	NGERR3005GEFW	J	Drive Angle Gear (VC-H992U(A))	AG
211	XWHJZ31-05052	V	Washer, W3.1-5.2-0.4	AC	317	NSFTD0041AJFD	V	Main Shaft(VC-H992U)	AH
212	XWHJZ31-06052	V	Washer, W3.1-5.2-0.6	AC	317	NSFTD0041GEFD	J	Main Shaft(VC-H992U(A))	AF
213	XWHJZ31-07052	V	Washer, W3.1-5.2-0.7	AC	CABINET PARTS				
214	PSPAP0009AJZZ	V	Reverse Guide Adjusting Nut(VC-H992U)	AB	600	GCABA3131AJSM	V	Top Cabinet	AT
214	PSPAP0009GEZZ	J	Reverse Guide Adjusting Nut(VC-H992U(A))	AA	601	GCABB1207AJKB	V	Main Frame(VC-H992U)	AS
216	LX-WZ1041GE00	J	CW 2.5-6-0.5 CAM	AA	601	GCABB1210EJKB	K	Main Frame(VC-H992U(A))	AS
218	XBPSD30P08J00	V	Drum Base Mounting Screw (SW 3P+8S)	AA	602	GCOVA2073AJKZ	V	Antenna Terminal Cover (VC-H992U)	AE
219	LX-WZ1098GE00	J	CW 2.6-4.7-10.5 RED	AB	602	GCOVA2073EJKZ	K	Antenna Terminal Cover (VC-H992U(A))	AE
220	LX-BZ3096GEFD	J	Tilt Adjusting Screw	AA	603	PSLDM4566AJFW	V	Shield Angle	AE
221	XBPSD26P06000	V	Azimuth Adjusting Screw 2.6+6S	AA	604	XHPSD26P06WS0	V	Screw	AA
222	LX-BZ3197GEFD	J	Screw (A/C Head)	AD	605	XHPSD30P06WS0	V	Screw	AA
223	XWHJZ31-08052	V	Washer, W3.1-5.2-0.8	AC	606	LANGK0197AJFW	V	Top Cabinet Fix Angle (VC-H992U)	AG
CASSETTE HOUSING CONTROL					606	LANGK0197EJFW	K	Top Cabinet Fix Angle (VC-H992U(A))	AG
300	CHLDX3081TEV2	V	Cassette Housing Control Ass'y(VC-H992U)	AX	607	XEPSD30P14XS0	V	Screw	AB
300	CHLDX3081GE02	J	Cassette Housing Control Ass'y(VC-H992U(A))	AX	608	LX-HZ3047GEFF	J	Screw	AA
301	LANGF9592AJFW	V	Upper Plate(VC-H992U)	AL	609	XEBSD30P12000	V	Screw	AA

VC-H992U VC-H992U(A)

Ref. No.	Part No.	★	Description	Code
610	LX-HZ3087GEFN	J	Screw	AB
611	PSLDM4562AJFW	V	H/A Shield top (VC-H992U)	AF
611	PSLDM4562EJFW	K	H/A Shield top (VC-H992U(A))	AF
612	LHLDZ1962AJ00	V	Sensor LED Cover	AD
613	PGUMS0026AJZZ	V	Foot Rubber	AB
614	TLABM3920AJZZ	V	Model Label(VC-H992U)	AF
614	TLABM3961EJZZ	K	Model Label (VC-H992U(A))	AF
615	XJPSD30P10WS0	V	Screw	AA

FRONT PANEL PARTS

500	CPNLC2514TEV1	V	Front Panel Ass'y (VC-H992U)	AY
500	CPNLC2514TE01	K	Front Panel Ass'y (VC-H992U(A))	AY
500-1	—————	-	Front Panel (Not Replacement Item)	—
500-2	HBDGB1008AJSA	V	SHARP Badge	AE
500-3	HDECQ1967AJSA	V	Cassette Flap(VC-H992U)	AH
500-3	HDECQ1967EJSA	K	Cassette Flap (VC-H992U(A))	AH
500-4	HDECQ1968AJSA	V	Window Dec.(VC-H992U)	AN
500-4	HDECQ1968EJSA	K	Window Dec. (VC-H992U(A))	AN
500-5	JBTN-2844AJSC	V	Button, REC(VC-H992U)	AC
500-5	JBTN-2844EJSC	K	Button, REC (VC-H992U(A))	AC
500-7	MSPRD0103AJFJ	V	Cassette Spring (VC-H992U)	AB
500-7	MSPRD0103EJFJ	K	Cassette Spring (VC-H992U(A))	AB
502	JBTN-2942AJSA	V	Button, PLAY (VC-H992U)	AH
502	JBTN-2942EJSA	K	Button, PLAY (VC-H992U(A))	AH
503	LHLDZ2066AJZZ	V	Button Holder(VC-H992U)	AG
503	LHLDZ2066EJZZ	K	Button Holder (VC-H992U(A))	AG
505	TLABZ1574AJZZ	V	Feature Label(VC-H992U)	AH
505	TLABZ1590EJZZ	K	Feature Label (VC-H992U(A))	AH

SUPPLIED ACCESSORIES

ACCESSORIES

SSAKA0001AJZZ	V	Polyethylene Bag (VC-H992U)	AB
SSAKA0001EJZZ	K	Polyethylene Bag (VC-H992U(A))	AB
TiNS-3499AJZZ	V	Operation Manual (VC-H992U)	AK
TiNS-3499EJZZ	K	Operation Manual (VC-H992U(A))	AK
TCADH3051AJZZ	V	Timer Card(VC-H992U)	AD
TCADH3051EJZZ	K	Timer Card(VC-H992U(A))	AD
QCNW-0322AJZZ	V	75 ohm Coaxial Cable	AM
RRMCG0235AJSB	V	Infrared Remote Control Unit	AZ

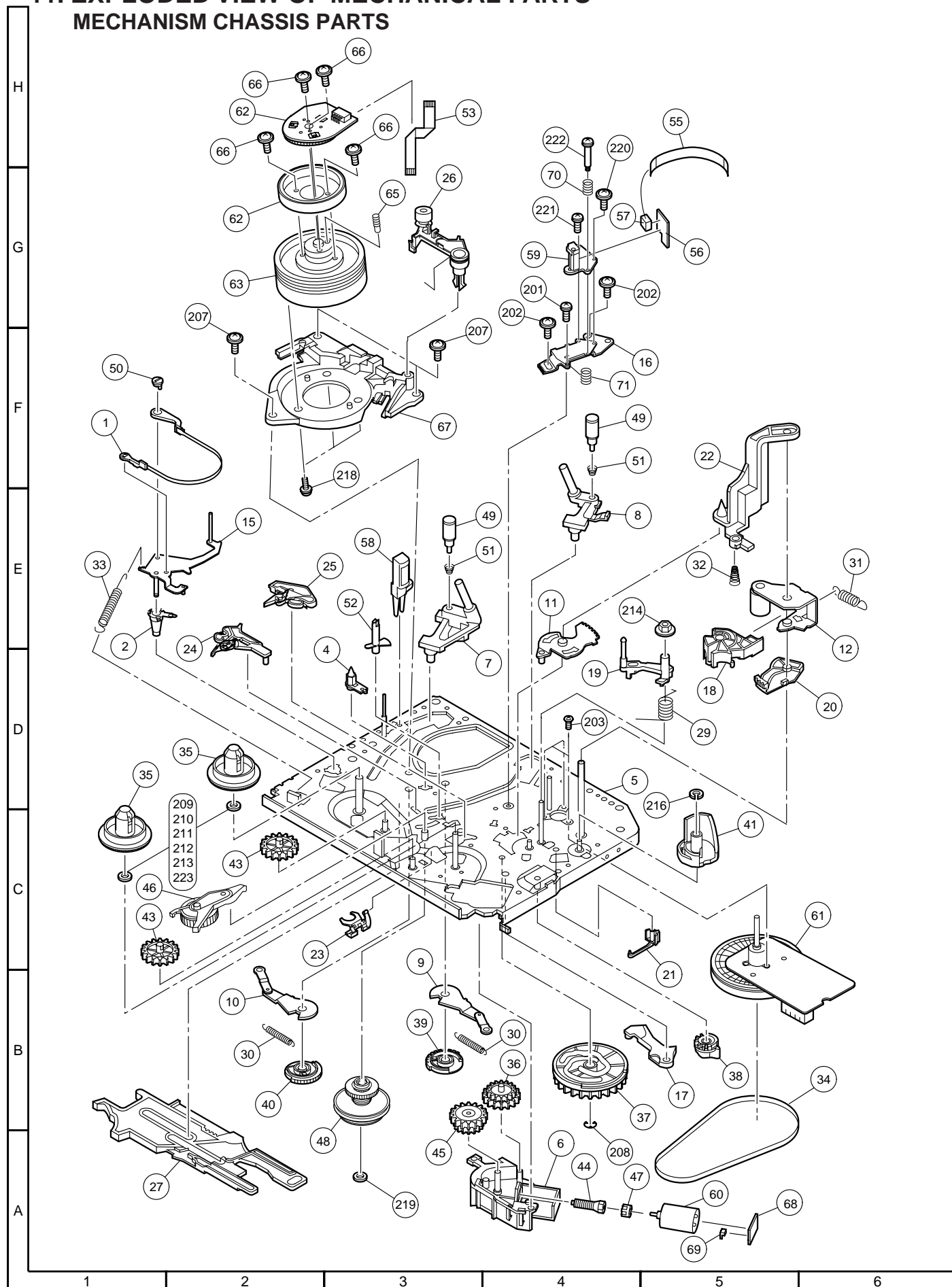
ACCESSORIES

(NOT REPLACEMENT ITEM)

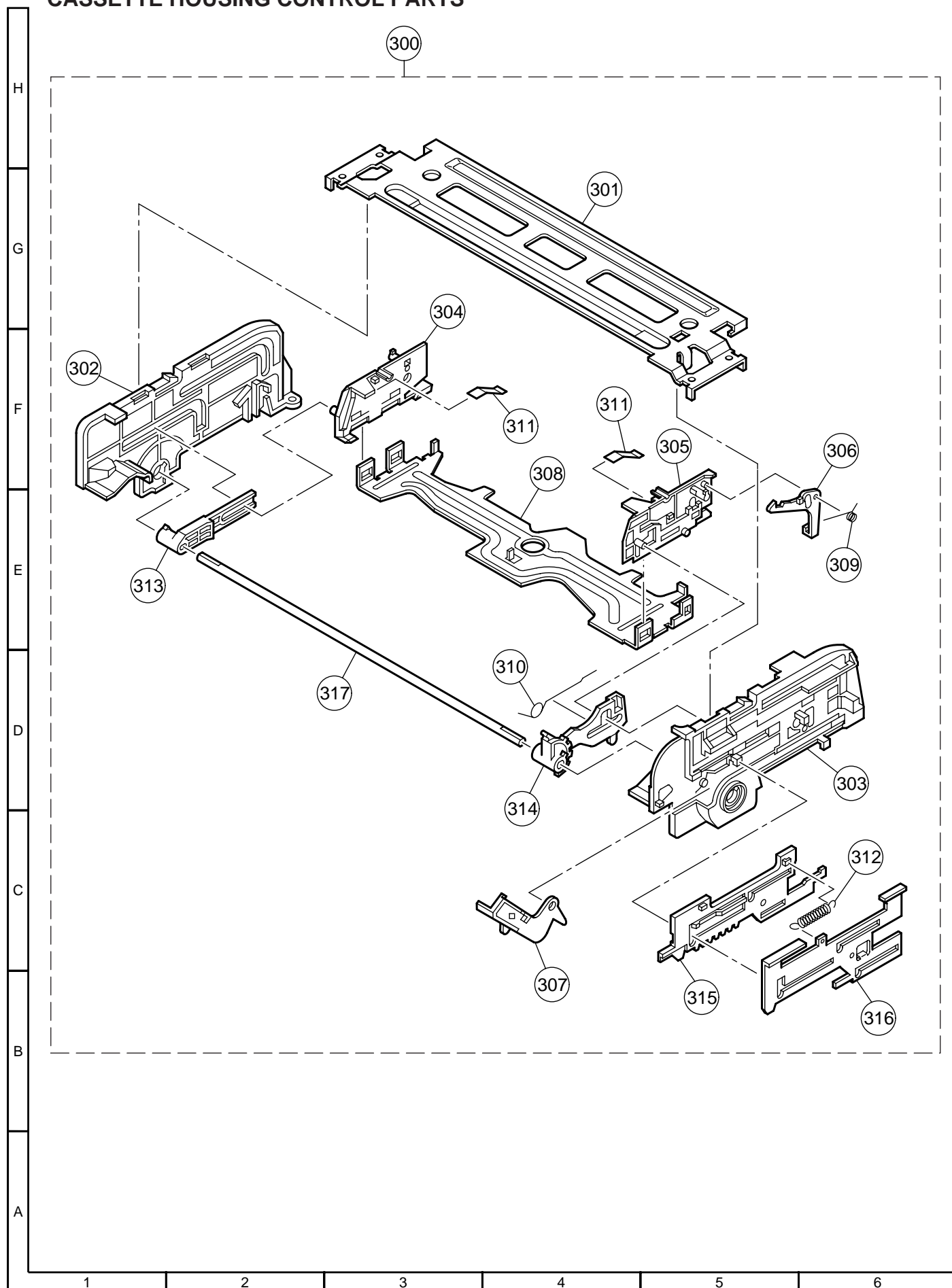
TGAN-0001AJZZ	-	Guarantee Card (VC-H992U)	—
TGAN-0001EJZZ	-	Guarantee Card (VC-H992U(A))	—

Ref. No.	Part No.	★	Description	Code
PACKING PARTS (NOT REPLACEMENT ITEM)				
	SPAKC3951AJZZ	-	Packing Case(VC-H992U)	—
	SPAKC3998EJZZ	-	Packing Case (VC-H992U(A))	—
	SPAKX1044AJZZ	-	Packing Add. (VC-H992U)	—
	SPAKX1047EJZZ	-	Packing Add. (VC-H992U(A))	—
	SPAKP0114AJZZ	-	Form Bag (VC-H992U)	—
	SPAKP0098EJZZ	-	Form Bag (VC-H992U(A))	—
	TLABK0005AJZZ	-	No. Label	—

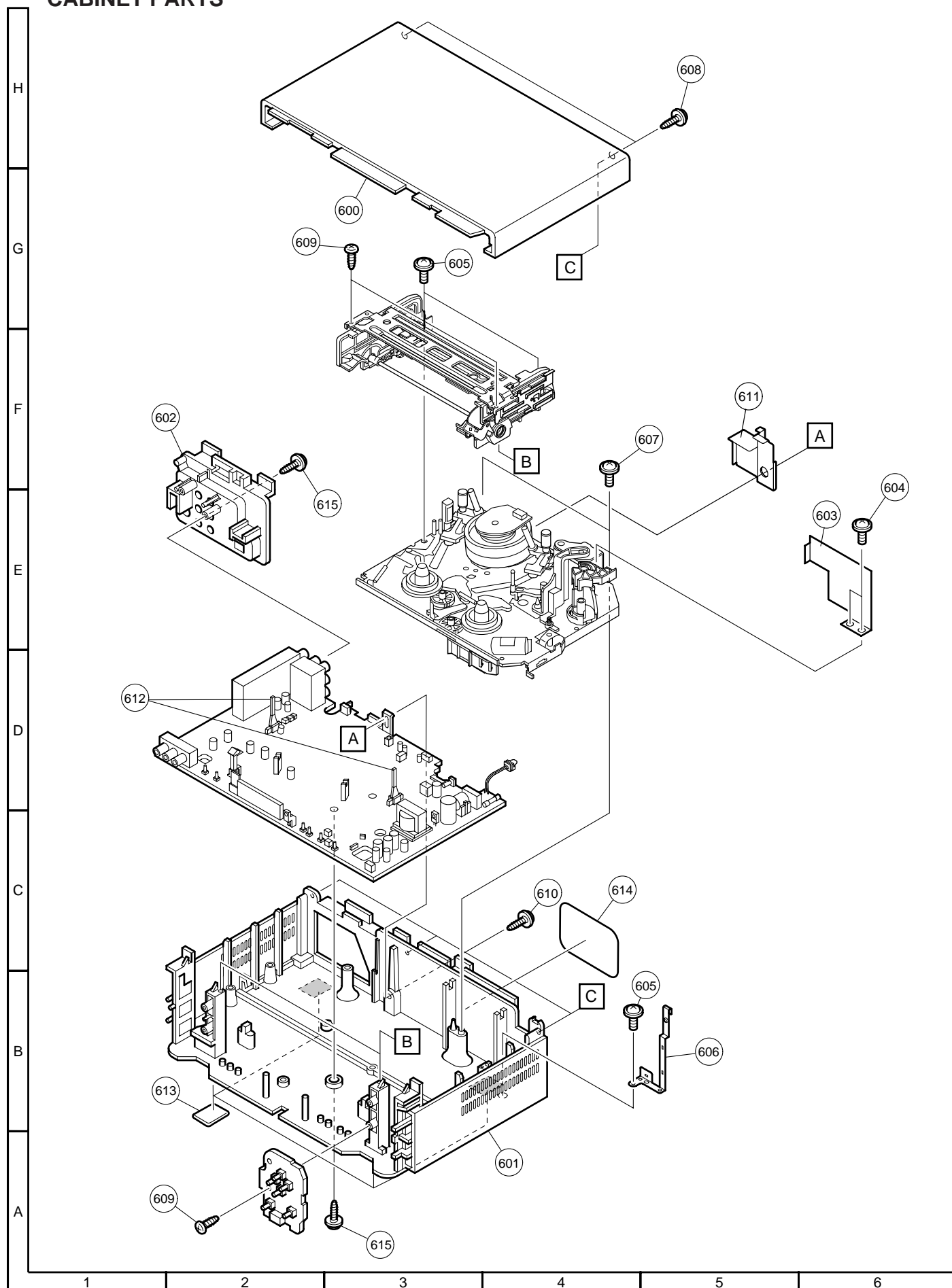
11. EXPLODED VIEW OF MECHANICAL PARTS MECHANISM CHASSIS PARTS



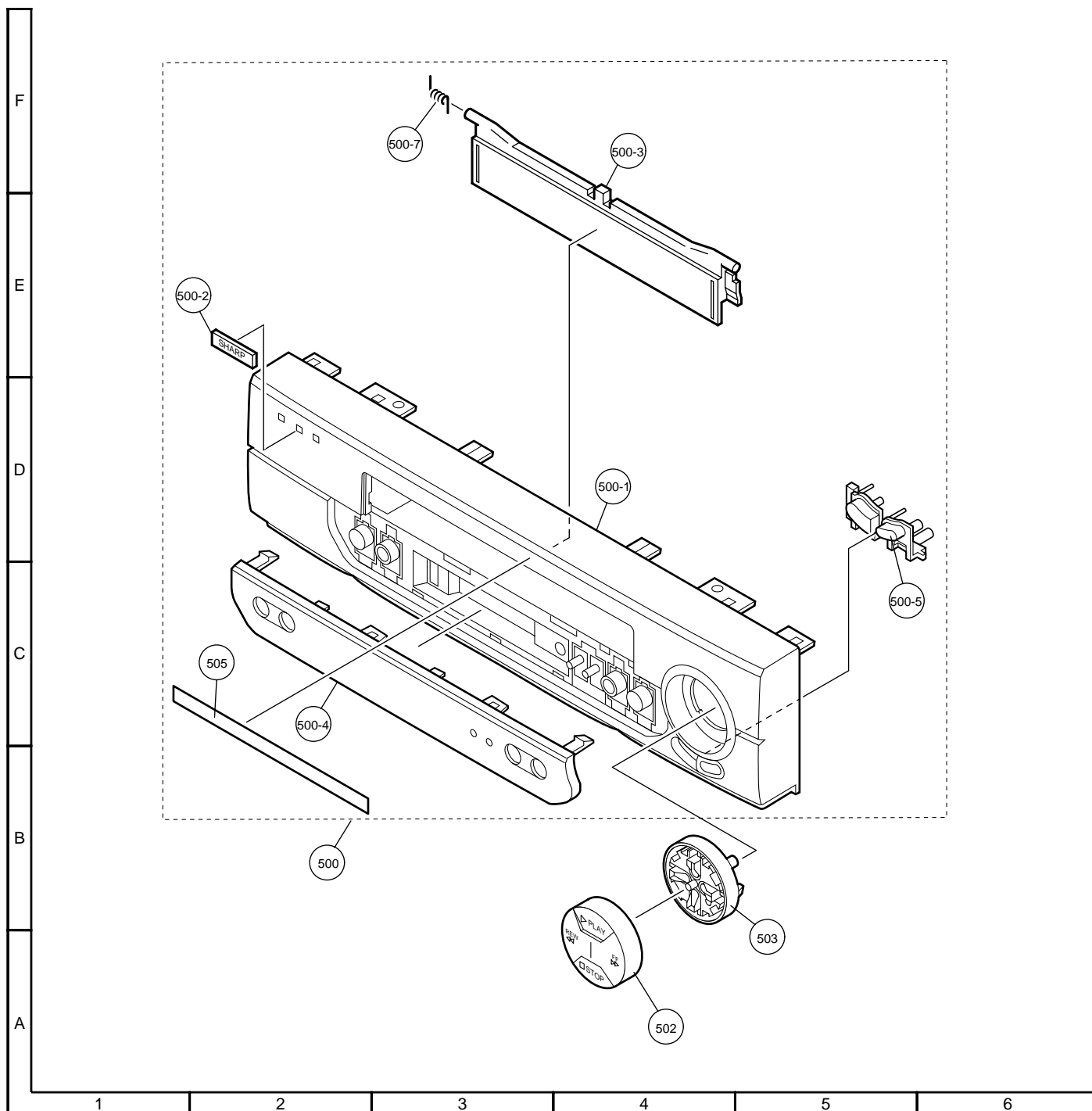
CASSETTE HOUSING CONTROL PARTS



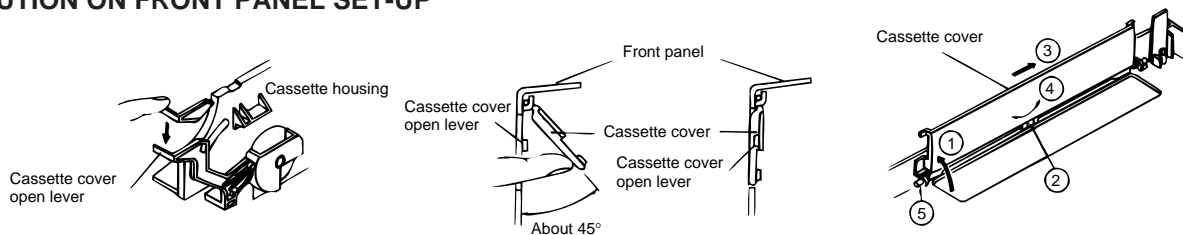
CABINET PARTS



FRONT PANEL PARTS



PRECAUTION ON FRONT PANEL SET-UP



Before attaching the front panel in position, make sure that the cassette cover open lever is in its right place (lower-most). If it is out of position, push it down with a finger.

Keep the cassette cover about 45° open and make sure that the cassette cover open lever is between the front panel and the cassette cover. Now fix the front panel in place.

Do not mount the front panel with the cassette cover tilted too open. Otherwise the cassette cover might wrongly run on the cassette housing.

Removing the cassette compartment cover.
① Open the cassette compartment cover fully.
② Remove the center positioner.
③ Slide the cover to the right.
④ Slightly bend the cover.
⑤ Draw out the left-side rod.

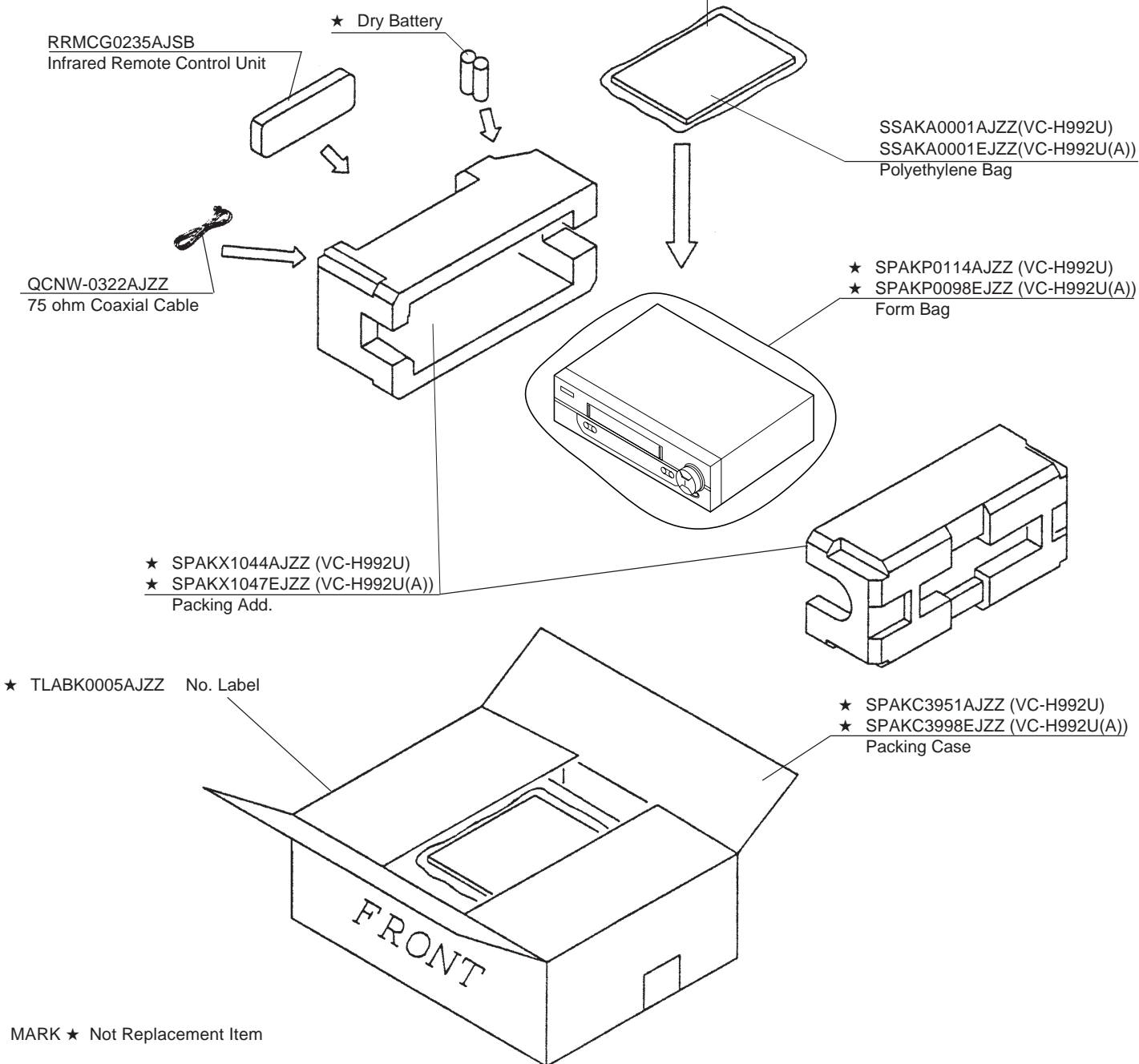
12. PACKING OF THE SET

■ Setting position of the Knobs

RF conv. CH. preset	at "3" channel
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Accessories

TiNS-3499AJZZ	Operation Manual (VC-H992U)
TiNS-3499EJZZ	Operation Manual (VC-H992U(A))
★ TGAN-0001AJZZ	Guarantee Card (VC-H992U)
★ TGAN-0001EJZZ	Guarantee Card (VC-H992U(A))
TCADH3051AJZZ	Timer Card(VC-H992U)
TCADH3051EJZZ	Timer Card(VC-H992U(A))



MARK ★ Not Replacement Item

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